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By T. W. LIPPERT
Sales Manager, Titanium Metals Corp. of America

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President, Reynolds Metals Company

BRITISH METAL MARKETS
By L. H. TARRING
London, England

DOMESTIC METAL MARKET REVIEW

U. S. METAL IMPORT DUTIES

WASHINGTON REPORT

METAL STATISTICS

JANUARY
1955

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TWO LINE *Editorials*

It is officially announced that the printed proceedings of the 83rd Congress amounted to 31,946,708 words. It is unofficially estimated that not more than 30,000,000 of these words were unnecessary.

* * *

That "temporary" increase of the national debt to $281,000,000,000 recalls the old adage that nothing is so permanent as a temporary arrangement.

* * *

A business executive says that "Government, like any good household, should live within its means." Government, however, like many good households, finds it inconvenient and unpleasant to do so.

* * *

Astronomers announce excitedly that light has just reached the earth from a star which exploded 20,000,000 years ago. It seems, however, too late for us to do anything about it now.

* * *

A Communist editor says that "Soviet Russia is sitting on top of the world." But is that a safe place to be sitting in a world which might explode at any moment?

* * *

One good reason for arming Germany is that Russia is so violently opposed to it.

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Washington Report

January 10, 1955

PRESIDENT EISENHOWER urged Congress to support a continued vigorous program for stockpiling critical metals and materials in his State of the Union message on January 6. In a second message delivered a few days later he asked Congress to approve a "moderate, gradual and reciprocal" program of reducing tariffs and of increasing trade with foreign nations.

The heart of the President's program is the same as it was last year, a proposal to extend the Reciprocal Trade Act for three years and to give him the authority to reduce present tariff rates by 5 per cent in each of the next three years. This would be done through the conventional multilateral trade agreements. During the same period, and also through many-nation agreements, the President asked power to lower any rate that now is over 50 per cent of the value of the commodity being imported to not less than 50 per cent.

Escape Clause

The President did not, as some business groups have urged, ask any modifications in the "escape clause" procedure. This clause written into all reciprocal trade agreements permits U. S. producers to ask for tariff relief when they believe increased imports under such an agreement are injuring their industry.

The President's State of the Union message also called for a two-year extension of the Defense Production Act authorizing priorities and allocations of defense materials and various programs to expand production of these materials.

Gov't Stockpiling

Lead and zinc producers were especially interested in the President's reference to stockpiling, since the stability of the markets for these metals has been largely dependent on continued monthly Government purchases. While the General Services Administration had not as yet entered the market for its regular monthly purchases of lead and zinc for the national stockpile, it is believed that it is only a matter of time when it will do so.

Government Metal Outlook

Bright prospects for the aluminum, copper, tin and iron and steel industries in 1955 were indicated in surveys made by the Commerce Department's Business and Defense Services Administration.

The BDSA Copper Division reported that the demand for copper and copper-base alloy fabricated products in 1955 is expected to approach a figure somewhat higher than that of 1954. Noting that estimates for 1955 are based on a new record of construction activity backed by increases in new orders for durable goods and stabilization of military procurement, the division stated that there will be a high level of production in the copper fabricating industry. Moreover, barring unforeseen work stoppages in the copper-producing areas, it is anticipated that a sufficient supply of copper will be available to take care of a 1955 increase in consumption.

Civilian Aluminum Use

Aluminum shipments for civilian use will set another new record in 1955 for the second year in a row, with total consumption, both civilian and defense, totaling an estimated 3,200,000,000 pounds, according to the BDSA. This is approximately the same total as for 1953 and is 300,000,000 pounds higher than 1954, but represents a far higher rate of civilian consumption in view of the decrease in defense consumption.

A 5 per cent increase in domestic consumption of tin this year over the estimated 56,000 tons consumed in 1954 is anticipated by BDSA. The International Tin Agreement is expected to be put in operation early in 1955. Under this agreement a buffer stock of 15,000 to 25,000 tons of tin metal is to be established. This buffer stock, plus insulated metal produced in the U. S., together with possible increased world consumption, should about balance world supply and requirements.

Mineral Industries Census

The first census of the nation's mineral industries in 15 years, which is scheduled to begin late in January, will be conducted jointly by two Federal agencies. The Bureau of the Census, Department of Commerce, and the Bureau of Mines, Department of the Interior, have worked out a program by which they will coordinate their efforts in canvassing 40,000 establishments in the mineral industries on 1954 operations.

Normally the Census Bureau gathers data on the mineral industries every five years but the interruption by World War II, combined with the failure of Congress to supply funds in the postwar years, resulted in the 15-year lapse. The Mines Bureau collects information regularly to provide statistics on mineral production.

New Preparedness Planning Staff

It was reported that Interior also has been organizing a metals and minerals preparedness planning staff. The group, which will function in the office of Felix E. Wormser, Assistant Secretary for Mineral Resources, will be responsible for evaluating periodically the supply and demand situation for the various metals and minerals in order to recommend methods of achieving a proper level of domestic production as part of the nation's mobilization base.

Magnesium Plant Lease Renewed

General Services Administration announced December 30 that the Dow Chemical Company renewed for three years its lease of the Government-owned magnesium plant at Velasco, Tex. The company acted upon a renewal option in its lease and at the same time withdrew its offer to buy the plant.

The plant, one of the largest magnesium producers in the National Industrial Reserve, was built at an original cost of about $26,500,000 and was restored to production in 1950. As an essential defense facility, its sale is subject to the National Security Clause which would require the purchaser to maintain it in readiness

(Continued on page 13)

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METALLIC TITANIUM SCORED IMPRESSIVE GAINS IN 1954; PRODUCTION WAS DOUBLED, PRICES REDUCED

Sponge Output May Reach 22,500 Tons in 1957; Gov't Encourages Industry; Full Recycling of Scrap May Bring Further Cost Cuts

By T. W. LIPPERT, Sales Manager, Titanium Metals Corp. of America

AFTER four years of struggling with metallurgical unknowns and obstinate production techniques, the producers and processors of metallic titanium in 1954 scored such encouraging gains as to assure a confident future. The 1954 production of basic metal more than doubled the 1953 figure. More important were the impressive improvements in quality, the significant reductions in metal processing losses, and the evolution of a firm and documented physical-metallurgy pattern which assures in 1955 and 1956 many new and very advanced alloys of exceedingly high strength and for high-temperature service.

Sponge Output 5,250 Tons

Each of the two commercial producers of raw titanium sponge, Titanium Metals Corp. of America and E. I. du Pont de Nemours, achieved 10 tons-per-day capacity production by late summer. Compared with a 1953 output of 2,250 net tons, total 1954 sponge production is estimated by Government agencies at 5,250 tons, of which TMCA and du Pont contributed about 2,500 tons each, the Bureau of Mines added 150 tons and other pilot units made up the remainder. Imports from Japan followed a rapidly rising curve by midsummer, the year's total being 250 tons, the major portion of quality metal originating in the Toho Titanium Co. plant at Chiagasaki City, Japan, a Mitsui enterprise.

Temporary Stockpiling

The very sharp increase in sponge production late in the year brought about a seeming paradox of an oversupply of the material in face of repeated Government announcements that present and planned capacities are insufficient to meet requirements of the Air Forces alone. Actually, aircraft manufacturers cannot use titanium metal for any given application until assured of a sufficient supply to fill that application completely. Therefore, a sharp increase in production necessitates a temporary stockpiling of sponge by the Government such as that which occurred late in 1954. It is anticipated that all or part of the stockpiled sponge will be melted and converted during the coming year as additional applications are made in jet engines and airframe programs.

Prices Reduced

The year was marked by substantial price mark-downs. In February TMCA led off with reductions in sheet, strip and plate which in certain grades and sizes amounted to 12 per cent, thereby establishing new market prices for those products. Lower market prices for bars and billets were set several weeks later when Rem-Cru Titanium, Inc., cut its prices for those products by as much as 14 per cent. Sponge prices were also reduced during the year, initiated by du Pont. The price of sponge was reduced from $5.00 to $4.72 per pound on April 1, and further reduced to $4.50 on December 1.

Recycling Of Scrap

While all these reductions were decidedly encouraging for such as infant industry, many trade observers look for even more significant declines in 1955, if the industry can continue its fast production and development pace and fully exploit current operations leading toward full recycling of scrap metal.

The drastic tightening and retightening of customer specifications throughout 1954 was reflected in a succession of production upheavals. However, industry sources do not anticipate much further burdensome and costly narrowing of specifications in 1955, for titanium mill products are today moving under customer limitations of a rigidity not to be duplicated in other structural metals having decades of production history.

For the past five years titanium sponge production has at least doubled each year, and some sources indicate a possible doubling again in 1955, or an output of 10,500 tons. More conservative estimates list a likelihood of about 8,800 tons in 1955, with the possibility of 15,200 tons in 1956 and 22,500 tons in 1957. The only new facility certain to contribute significant quantities of metal in 1955 will be Cramet, Inc., a Crane Co. subsidiary, which is constructing a 6,000-ton-per-year plant at Chattanooga, Tenn., under a contractual arrangement with the General Services Administration. The Dow Chemical Co. plant, Midland, Mich., under G. S. A. contract for 1,800 tons annually probably will come in with pilot quantities during 1955, but likely won't approach capacity operation until late 1956.

New Production Facilities

One of the most significant new entries into the production field in 1954 was the Electro Metallurgical Co. division of Union Carbide & Carbon Corp. which late in the year completed negotiations with the Government for a 7,500-ton-per-year plant at Ashtabula, Ohio, and has announced late 1957 as its target for full production. Horizons Titanium Corp. is building a small electrolytic pilot unit at Stamford, Conn., under a Government research contract; Kennecott Copper Corp. has announced the likelihood of a 3-ton-per-day semi-commercial plant; and there are rumors that Britain's Imperial Chemical Industries (which is constructing a 1,500-ton-per-year plant in England) intends to construct a facility in the United States, possibly in affiliation with a yet unnamed American company.

The General Services Administra-

tion has under active consideration a second contract with the Titanium Metals Corp. of America for an additional 5,400 tons per year at Henderson, Nev., and with E. I. du Pont de Nemours an additional 7,200 tons per year near Waverly, Tenn., and has under preliminary negotiation contracts totaling 20,000 tons per year with other interested and capable firms.

Technological Front

On the technological front, no new or particularly significant technique for producing the basic sponge metal has made its appearance. However, both the Electro Metallurgical Co. and Imperial Chemical Industries have attracted considerable attention by reverting to a modification of the original method of producing metallic titanium, using sodium to reduce the tetrachloride, as against the magnesium (Kroll) reduction of the tetrachloride as practiced by TMCA, du Pont and Cramet. The only fully-integrated facility operating or in the planning stage is Titanium Metals Corp. of America, which carries ore through the entire productive sequence to finished mill products, and is unique in that it recycles the by-products of reduction, i. e. chlorine and magnesium. In the melting of titanium sponge, the double-melting and vacuum-melting techniques, announced early in the year by TMCA, are apparently becoming standard practice throughout the industry.

Confidence In Metal

That this new structural metal has so quickly attracted so many blue-ribbon American industrial firms into heavy technical and financial commitments is in itself a massive vote of confidence in titanium's unique high strength with light weight and superior corrosion resistance. These

(Continued on page 13)

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U.S. ALUMINUM OUTPUT PUT AT 1,450,000 TONS IN '54, 16% ABOVE 1953; UP THIRD SUCCESSIVE YEAR

1955 Prospects: Growing Civilian Demand for Metal and 50,000-Ton Boost in Production As Fourth Domestic Producer Begins Operations

By R. S. REYNOLDS, Jr., President, Reynolds Metals Company

CIVILIAN aluminum markets are reaching new all-time highs and are growing more rapidly than most major industrial markets. In 1955, regular aluminum markets will be still larger and should set new records for the industry.

Shipments of aluminum mill products towards the end of 1954 are about 23 per cent higher than they were at the beginning of the year, while the general business index shows a 5 per cent rise over the same period. In addition, substantial tonnages of primary aluminum went into Government stockpiles.

New Production Record

Primary aluminum production is also setting a new record with an expected output of 1,450,000 tons for 1954, 16 per cent higher than in 1953. This is the third successive year that new primary production records have been set by the domestic producers. Next year, with a fourth producer commencing operations, domestic primary aluminum production is expected to go still higher, to 1,500,000 tons.

During 1954, Reynolds Metals Company completed the expansion of primary capacity it had undertaken under the Korean emergency program and its output for the year will reach a new high, about 20 per cent above its record output of 1953. Full capacity output of 414,500 tons is expected in 1955. With the new producing facilities completed, attention is now being centered on further development of the Company's fabricating facilities. Rod capacity has been increased during the year and new plate facilities now being installed will be in operation in 1955.

Peak Shipments

The aluminum industry's success in making record shipments to civilian markets during 1954, in the face of the soft markets which had developed throughout the economy in the second half of 1953, reflects its basic strength. With aluminum in adequate supply throughout 1954, it was possible to make further progress in such major markets as construction, transportation, appliances, electrical equipment and packaging.

Widespread recognition of aluminum's maintenance-free, light-to-handle qualities, plus its permanence, has increased its use for windows, wall construction and varied architectural applications. The emphasis on air conditioning has also brought increased preference for rustproof aluminum duct. New headquarters for Reynolds Metals Company executive offices in Richmond, Virginia, are now being planned, incorporating the latest developments in aluminum design and finishes for exterior and interior use in office buildings.

The use of aluminum in transportation continued to increase during the year, averaging about 35 pounds per passenger automobile or more than four times as much as was used right after World War II. Renewed interest is being shown by railroads in lightweight passenger trains, such as the aluminum Talgo unit which has operated successfully and economically in Spain for many years.

Irrigation Pipe Sale

Aluminum irrigation pipe sales reached a new high in 1954. Its use is no longer confined to arid areas or to dry seasons. Instead it is being utilized all over the country to provide stability of water supply for cash crops, enabling the farmer to achieve a much higher yield per acre and to control his output better. The year 1955 is expected to bring further expansion of this market.

Foil Packaging Use Up

Foil packaging has also enjoyed a record market during 1954. The use of color printed foil labels and packaging as silent salesmen on supermarket shelves is more widespread among food packaging and beverage bottling companies than ever before. In the home too, aluminum foil is being consumed in unprecedented quantities, for cooking, wrapping and a multitude of other household purposes.

The 1955 outlook is bright for the aluminum industry in view of the ample supply available to meet the growing market demand and the continued upturn expected in general business conditions.

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COPPER MADE MUCH BETTER SHOWING IN 1954 THAN HAD BEEN ANTICIPATED; U. K. 1955 OUTLOOK GOOD

Switch Sterling Operations Depress Tin, Keep British Dealers Out Of American Market; Lead, Zinc Outlook Hinges on U. S. Stockpiling

January 5, 1955

By L. H. TARRING
London, England

DURING December the copper market continued strong and prices on the London Metal Exchange rose pretty sharply. Normally around Christmas and the end of the year season, there is a slowing down in consumer activity owing to the holidays and the usual end of the year stock taking, but this year, thanks to the very active state of demand for fabricated products and the heavy order books of the fabricators, interruption to business was rather less marked than is often the case.

In the closing days of December the fact that the revised standard copper contract on the Metal Exchange was due to come into operation at the beginning of 1955 (which would make only warehouse deliverable against Metal Exchange contracts) led to even more marked tightness in the cash position as there is very little free metal about and for some time now a good deal of cash business on the Exchange has been settled by delivery orders from U. K. refineries — under which the producers here had more latitude as to the actual day on which the metal was delivered.

1954 Very Satisfactory

Looking back, there can be no doubt whatever that the copper market not only in this country, but also internationally, made a very much better showing during 1954 than most people had anticipated would be the case. Considering that in the early months of the year industrial activity in the United States was definitely below the postwar peak, this can only be regarded as very satisfactory, although one has to take into consideration, of course, the fact that large quantities of copper were lost through major strikes in the United States and Chilean producing industries. It is remarkable how ebullient demand for copper has proved to be since the end of the war.

Although during that period very big progress has been made in the production and consumption of aluminum, and although leading copper producers are still anxious that prices for copper should not go too high for fear of encouraging competition from aluminum, the outlook at any rate for the early part of 1955 seems very promising as far as copper is concerned. Some doubts exist as to whether later in the year, when a substantially increased production (taking the world as a whole) may be looked for, the situation will remain as strong as it is at present.

Price Stabilization

Meanwhile, the desire of certain leading producers in the British Commonwealth to try and stabilize prices to their consumers in the U. K. (to which reference was made in the previous report) has not so far made very much headway. All the producers have not yet expressed their willingness to accede to the idea of offering at fixed prices — at present below open market levels — in the interests of stabilizing the cost of copper products to consumers and thus limiting the effectiveness of alu-

U. K. COPPER STATISTICS

The British Bureau of Non-Ferrous Metal Statistics reports U. K. stocks of copper at the end of October as 61,484 tons compared with 72,266 tons at the end of September. Of the October figure, blister accounted for 15,456 tons (20,818 tons) and refined 46,028 tons (51,448 tons). Consumers held 23,020 tons of refined, stocks in L. M. E. approved warehouses amounted to 829 tons and other stocks 15,456 tons blister and 22,179 tons refined. Production during the month amounted to 9,282 tons primary refined, 887 tons secondary blister, and 8,816 tons secondary refined. Consumption (copper content of output) was slightly lower at 53,319 tons compared with 54,966 tons in September.

The following figures show output of main copper and alloy products during September, in long tons.

	Oct.	GROSS OUTPUT Oct. 31st	Oct. 31st
	1954	1953	1954
UNALLOYED COPPER PRODUCTS:			
Wire	18,148	116,628	148,610
Rods, Bars and Sections	1,649	10,568	19,243
Sheet, Strip and Plate	5,680	35,211	49,349
Tubes	4,626	30,266	38,376
Castings and Misc.	500	5,000	5,000
ALLOYED COPPER PRODUCTS: (Gross Weight of Alloy)			
Wire	1,682	9,657	14,212
Rods, Bars and Sections	12,806	77,061	107,844
Sheet, Strip and Plate	10,895	86,245	104,251
Tubes	1,749	14,360	15,194
Castings and Misc.	5,046	40,488	50,858
Copper Sulphate	4,528	38,564	42,881
Total All Products (including gross weight alloys)	67,309	464,048	595,818
Copper content of output	53,319	362,003	468,498
Consumption of Refined Copper	40,664	257,816	354,746
Consumption of copper and alloy scrap (copper content)	12,655	104,187	113,752

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minum in competition on price grounds. Moreover, the consumers have not yet clarified their own attitude as, although they would undoubtedly like to see more stable prices, the existing methods of pricing their products for sale would make the proposals of the producers difficult to operate until, or unless, the great bulk of their total copper intake was obtainable in the same way.

The new year opens with demand running at a very high level and the outbreak of a strike of native workers on the Rhodesian mines has naturally caused anxiety here in view of the already very tight situation.

Tin has continued to be a disappointing market during the past month. A continuation of operations in tin on the basis of cheap transferable sterling has continued to keep British dealers out of the American market and has also continued to have a rather depressing effect on sentiment.

Tin Market Disappointing

The latter was not helped when at one time a rumor spread that the French Government was most unlikely to ratify the international agreement; and even though this report subsequently appeared to be without foundation it is not noticeable that there has been any worthwhile accession of confidence.

Consuming demand for tin is quite well maintained and so long as the tinplate industry of the world continues to make progress will presumably not fall off but compared with the level of activity in other metal markets in recent months, it cannot be said that tin has made a particularly good showing.

World Agreement

There are still only a few countries who have ratified the control agreement but it is probably true to say that it is generally assumed that the agreement will come into operation sometime this year. It is pretty obvious, however, that it would not have a very easy task in its initial stages if the U. S. Government does not renew its contracts for Indonesian and Bolivian concentrates, and continues to take the resulting tin from these purchases off the market.

It is estimated that in the past 12 months fully 30,000 tons have been

U. K. TIN STATISTICS

According to the British Bureau of Non-Ferrous Metal Statistics U. K. stocks of tin at the end of October amounted to 4,425 tons compared with 4,657 tons at the end of September. Of the October figure consumers held 1,713 tons and other stocks 2,712 tons. Production in September (the latest figure available) amounted to 2,355 tons compared with 2,112 tons in August. Consumption at 1,790 tons was lower than the 2,034 tons reported for September.

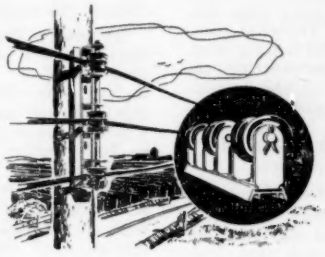
The following figures show consumption of tin by main trades, in long terms:

	Oct. 1954	Jan.-Oct. 1953	Jan.-Oct. 1954
Tinplate	774	7,378	8,166
Tinning	141	1,026	1,273
Solder	189	1,275	1,714
Alloys	508	4,455	4,621
Wrought Tin	71	505	621
Chemicals	92	595	771
Other Uses	15	91	122
Total All Trades	1,790	15,325	17,288

BUSINESS IN MOTION

To our Colleagues in American Business ...

This is called a rack. It is fastened to electric light poles to hold wires from pole to pole, and from pole to house. Perhaps you may have noticed racks on poles, but unless your electric company has recently replaced them on the lines in your vicinity you have not seen anything quite like this. It is made of aluminum, instead of galvanized steel, and is assembled almost entirely of extruded shapes.



Naturally you will think that aluminum was chosen in order to save weight, and as a matter of fact, lightness plus strength is a factor. The aluminum rack is five to six pounds lighter, and that is appreciated by the linemen who have to put the rack on the pole after they have climbed it. However, lightness is not the main consideration. Long life is the big advantage. Modern methods of treating poles with preservatives make it reasonable to assume that a pole will last for 50 to 60 years. Now for the first time there is a rack or bracket, as it is sometimes called, that should outlast the pole. As soon as aluminum is exposed to the air, a thin film of oxide forms, and this is a protection against further action by air and rain. As for price, the aluminum rack costs a little more, but this is compensated, many times over, by the increased years of service.

There are some interesting features of design that are worth noting. The extruded shape that forms the base of the rack is adequately ribbed for strength, and in addition, provides a channel into which the arms are slid after having been notched and bent at right angles. The channel and the arms together take the pull of the wires; the rivets are used just for positioning. Incidentally, the rack has to withstand a total pull of 6,000 pounds. The arms are formed with a slight longitudinal camber or bow and have rounded edges, because linemen pull the wires across them, and the camber and edges protect the insulation from damage. The rod on which the insulators are threaded is extruded aluminum. One final detail, which is not easy to see in the drawing; the bottoms of the base are toothed, to hold to the pole better.

Revere takes especial satisfaction in this new and superior rack, because the Technical Advisory Service, the Mill, and the customer worked so closely together. There was a joint attack on the problem of developing a product that would not only be better, but could be assembled simply and economically. Suppliers to industry are not only well informed regarding their materials, but glad to cooperate with customers and prospects on matters concerning specification and fabrication. Revere suggests that you call upon your suppliers not only to fill orders, but to place their skill and knowledge at the disposal of your designers and production people.

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Mean of Bid and Asked Cash Quotation at Close of Morning Session on London Metal Exchange

	COPPER			TIN			LEAD		ZINC	
	Cash	3 Months	Settlement	Cash	3 Months	Settlement	Current Month	3rd Following	Current Month	3rd Following
1954	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
January	225 3 3	214 15 0	225 12 6	654 15 9	630 15 3	656 2 6	86 9 1	85 15 11	73 0 6	71 13 6
February	230 19 0	215 12 11	231 7 6	661 2 6	637 8 3	662 13 0	82 15 2	81 19 2	72 4 6	70 13 8
March	236 2 5	225 12 2	236 11 7	720 7 2	686 7 2	722 9 2	86 7 1	85 5 0	74 5 2	73 1 7
April	242 8 2	232 10 5	242 15 0	753 3 0	735 5 9	754 17 6	93 10 11	91 9 8	79 12 11	78 16 4
May	242 1 4	237 15 10	242 6 2	721 15 9	720 10 12	722 10 6	94 7 11	92 15 10	79 10 6	79 4 11
June	238 17 9	237 3 5	239 0 11	729 19 3	728 13 1	730 9 7	97 9 1	95 1 11	79 18 5	80 5 3
July	238 5 4	236 7 9	238 8 5	756 11 10	748 16 7	757 5 4	95 13 10	93 19 5	77 11 3	78 1 0
August	236 10 4	234 19 7	236 13 7	732 2 10	731 11 1	732 12 5	96 18 2	94 17 11	75 6 4	75 11 10
September	256 7 6	245 0 6	256 17 3	735 8 3	735 1 7	735 14 1	101 6 11	99 4 9	80 12 3	80 9 1
October	280 15 3	264 0 6	282 2 10	732 10 3	732 0 6	732 17 8	108 13 10	103 7 3	82 10 6	82 6 5
November	275 7 11	263 13 7	276 1 4	723 19 9	720 11 10	724 8 8	108 1 12	103 19 5	81 4 5	81 4 5
December	280 3 4	267 2 10	280 12 11	705 2 6	705 0 3	705 11 4	104 4 3	103 4 0	82 14 5	82 0 5
1954 Averages	248 17 11	239 17 7	249 8 11	719 8 11	709 17 7	720 6 7	98 8 12	94 7 4	78 5 4	77 16 11

taken out of circulation in this way and it does not require very much imagination to see what would happen if such a large tonnage were to come on to the open market again.

It may well be that during 1955 some further contraction will be seen in Bolivian production but so far any downward trend in that direction has been offset by the improved Malayan production, which last year was the highest for some time. Internal conditions in Malaya are still a long way from completely satisfactory but at any rate they are less troubled than they were a year ago and a certain amount of prospecting and development work on tin mining is now practicable.

Little Change In Lead

Fundamentally the lead situation has not changed a great deal during the past month. Demand was not very seriously affected by the Christmas holidays but they did cause, of course, some temporary slowing down in consumption. Generally speaking, demand has taken care of all the supplies offering without very much difficulty and, quite apart from the supporting influence on London prices of the stabilized U. S. quotation of 15 cents per pound New York, the tone of the market here has been quite good. The refineries in this country are able to dispose of their output without any difficulty at all and the demand for scrap lead continues to exceed the supply.

Obviously the outlook for the coming year will depend to a considerable extent on the volume of buying by the American stockpile as without this it is perhaps still open to doubt whether the domestic quotation would be fully stable, although the general aspect of the U. S. lead market is much more promising today than it was a year ago. The past year has seen a gradual improvement in consumption of lead in Europe but the improvement has not been a very spectacular one or of major dimensions. Whether Russia will again come into the London market for supplies in 1955 is anybody's guess, but the possibility certainly cannot be ruled out. Consumers here are not believed to be particularly well covered and there is certainly no pressure of nearby metal on the market, as is evident from the persistence of a moderate backwardation — which widened rather sharply at the time of the second half December settlement on the London Metal Exchange.

Zinc Tone Stronger

Ever since the middle of last year when the American stockpiling plans for zince were stepped up so dramatically by President Eisenhower as a means of helping domestic producers, the tone of the zinc market has been steadily strengthening here.

So far the reactions, as far as prices are concerned, have not been very striking but this is partly due to the fact that the supply situation of G. o. b. metal has remained relatively easier than that of the higher grades. In recent weeks 99.95% and minimum 99.99% grades have become definitely tight in this country and consumers not covered well forward have, on occasion, had to pay some fairly fancy premiums for spot supplies.

All the main zinc consuming industries here are enjoying very active trading, galvanizing having made further progress in recent weeks while the brass trade is running at a very high level and zinc alloy diecasting is making a better showing than most people had thought probable.

Current requirements of high purity zinc for this purpose in the U. K. are put at fully 40,000 tons a year and there are some hopeful forecasts that an annual rate of 50,000 tons will be achieved before very long.

Some progress in zinc diecasting can also be recorded from the Continent of Europe and it may well be that for some little time to come there will be a tight supply situation for this grade.

The long term outlook for the metal is obviously governed to a considerable extent by whether the U. S. Government will continue to buy something like 15,000 short tons a month for the stockpile, as over a period this obviously has a considerable effect on the whole world situation. For the near future, on the assumption that further stockpile purchases will be made, there seems a definite chance of some rise in the American internal price which would almost certainly be followed by a higher level of quotations on the London market.

U. K. LEAD STATISTICS

The British Bureau of Non-Ferrous Metal Statistics reports U. K. lead stocks at the end of October as 22,269 tons compared with 28,958 tons at the end of September. Of the October figure consumers held 9,588 tons imported virgin and 4,662 tons English refined, stocks in L. M. E. warehouses amounted to 2,385 tons imported virgin, and other stocks 4,354 tons imported virgin and 1,280 tons English refined. Production during October amounted to 7,988 tons of English refined compared with 7,356 tons in September. Consumption at 30,123 tons was slightly lower than the 30,631 tons in September.

The following figures show consumption of lead by main trades, in long tons:

	Oct.	Jan.-Oct.	
0	1954	1953	1954
Cables	7,855	76,628	69,392
Batteries, as metal	2,399	23,075	24,921
Battery Oxides	2,445	19,150	23,031
Tetraethyl Lead	1,738	5,889	12,138
Other Oxides and Compounds	2,246	19,062	22,760
White Lead	1,068	9,082	9,838
Shot	408	3,762	4,184
Sheet and Pipe	7,182	58,593	65,873
Foil and Collapsible Tubes	435	3,115	3,951
Other Rolled and Extruded	802	4,958	6,421
Solder	1,040	8,645	10,222
Alloys	1,394	9,792	12,369
Misc. Uses	1,111	8,062	11,389
Total Consumption	30,123	249,813	276,489
of which:			
Imported Virgin Lead	14,966	125,956	158,713
English Refined	8,077	54,135	54,585
Scrap including Remelted	7,080	69,722	63,191

U. K. ZINC STATISTICS

According to the British Bureau of Non-Ferrous Metal Statistics, U. K. stocks of zinc at the end of October amounted to 44,611 tons compared with 47,314 tons the previous month. Of the October figure consumers held 18,780 tons and stocks in L. M. E. approved warehouses amounted to 3,155 tons. Stocks of zinc in concentrates fell to 41,885 tons compared with 46,221 tons in September. Production during October of virgin metal amounted to 6,425 tons compared with 7,657 tons in September. Consumption at 28,543 tons was lower than the 30,413 tons recorded in September.

The following figures show U. K. consumption by main trades, in long tons:

	Oct.	Jan.-Oct.	
	1954	1953	1954
Brass	10,010	68,201	89,595
Galvanizing	9,150	72,911	88,073
of which:			
General	2,947	26,852	27,716
Sheet	2,979	22,854	29,122
Wire	1,887	12,125	17,577
Tube	1,337	11,080	13,658
Rolled Zinc	2,014	18,080	18,707
Zinc Oxide	2,459	19,275	25,002
Zinc Alloy Diecasting	3,170	20,371	28,602
Zinc Dust	778	7,054	7,381
Misc. Uses	962	9,607	9,912
Total All Trades	28,543	215,499	267,272
of which:			
Virgin metal	21,307	152,291	196,884
Secondary	7,326	63,208	70,388

U. S. Aluminum Output In '54 Estimated At 1,450,000 Tons

(Continued from page 8)

are properties much in demand by the civilian economy, and in particularly immediate demand by military contractors. For, as announced late in the year by the office of the Assistant Secretary of Defense: "We believe that the successful development and engineering application of titanium in this country will represent a major technological break-through. It opens up the possibility of military designs, with performance characteristics that would be impossible of attainment with other known materials and could have an important bearing on the outcome of our technological race."

Washington Report

(Continued from page 5)

to turn out magnesium for national security.

Tungsten Industry Protection

How imports of tungsten ore and concentrates compete with and move freely in competition with the domestic supply was pointed out to the Committee for Reciprocity Information in a brief filed by Charles H. Segerstrom, Jr., president of the American Tungsten Association of Sonora, Calif., and also of the Nevada-Massachusetts Co.

Mr. Segerstrom pointed out that there is contained within the continental U. S. large and important deposits of tungsten ore as well as thousands of undeveloped prospects. Tungsten ore reserves are greater than ever before. Asking for no tariff reduction on tungsten, Mr. Segerstrom said that the domestic tungsten industry must be protected as a tungsten mobilization base, rather than have the U. S. rely upon foreign supply.

Nickel Scrap Exports

The Commerce Department on January 10 tightened its restrictions on exports of nickel scrap to conserve supplies of the alloying metal for domestic users. Henceforth, the Department ruled clean nickel alloy scrap containing 50 per cent or more nickel will not be considered for export. Up to now the Department has allowed exports of nickel alloyed scrap containing up to 67 per cent of nickel.

The Department said exports will be still granted licenses to export the following types of nickel scrap: clean nickel alloy scrap containing less than 50 per cent nickel; contaminated nickel alloy scrap regardless of content; nickel-bearing stainless steel, and nickel-bearing cobalt scrap. Exporters, in order to get licenses will be required to submit evidence that the nickel-bearing scrap they desire to ship abroad is not commercially saleable in the U. S.

Aluminum Scrap Exports

The Bureau of Foreign Commerce announced that the first quarter, 1955, export licensing of aluminum scrap will continue under the present open-end policy. Under an open-end quota, no quantitative limitation is set, but exports are controlled to protect the national security.

In addition, all special licensing requirements previously imposed have been removed, and exporters no longer are required to submit such evidence as copies of irrevocable letters of credit and purchase contracts in connection with their applications to export this commodity.

Titanium Output Up

The titanium industry last year set new high records in the domestic production of ilmenite concentrates, pigments, sponge-metal, and mill products, according to the U. S. Bureau of Mines. Imports of titanium also established a record high. (See T. W. Lippert's article on titanium on page 7 of this issue.)

Domestic production of commercially-pure titanium sponge-metal in 1954 is estimated at 5,300 short tons, more than double the 1953 output of 2,241 tons.

U. S. output of titanium mill products (sheet, plate, etc.) is estimated at 1,300 short tons in 1954.

Domestic ilmenite production and shipments in 1954 are estimated at a record high of 546,500 and 528,900 short tons, respectively, an increase of 6 and 3 per cent from 1953. The titanium dioxide content of ilmenite concentrates ranged from 45 to 66 per cent in 1954.

Rutile production and shipments in the United States in 1954 are estimated at 6,800 and 6,500 short tons, respectively; about the same as the 1953 figures.

Receipts Of Titanium Concentrates

U. S. receipts of titanium concentrates for the period January to October, 1954, inclusive, totaled 252,429 short tons, an increase of 14,124 tons from the same period in 1953. Of this total ilmenite imports were 240,936 tons coming from India (167,484 tons) and Canada (73,452 tons). Receipts of rutile from Australia, the sole supplier, totaled 11,493 tons. Titanium concentrates were free of tariff duties in 1954.

Titanium sponge-metal imports for the first 10 months in 1954, inclusive, totaled 136 short tons, an increase of 100 tons from the 1953 yearly import figure. All of this material was imported into the United States from Japan. The tariff on titanium metal was quoted at 20 per cent ad valorem in 1954.

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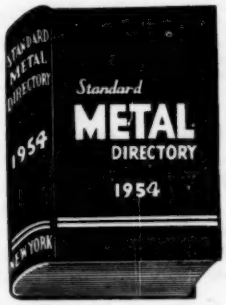

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COPPER

NOTE—The excise tax of 4c a pound on copper (which was reduced to 2c a pound by the Geneva Trade Agreement) was suspended in April, 1947, until March 31, 1949, and on expiration it was further suspended until June 30, 1950. The tax was reimposed on July 1, 1950. It was suspended again on May 22, 1951, retroactive to April 1, 1951, and until February 15, 1953, and again until June 30, 1954. Suspension further extended to June 30, 1955.

Copper ore and concentrates, usable as flux, etc., copper content	free
Copper ore and concentrates, product of Cuba and Philippines, copper content	free
Copper ore and concentrates, copper content	free
Regulus, black, or coarse copper, and cement copper, copper content	free
Unrefined black, blister, and converter copper in pigs or converter bars, copper content	free
Refined copper in ingots, plates or bars, copper content	free
Copper rolls, rods or sheets	1¼c lb.
Copper seamless tubes and tubing	3½c lb.
Copper plain wire	12½%
Copper brazed tubes	5½c lb.
Old and scrap copper, fit only for remanufacture; and scale and clippings, copper content	free

BRASS

Brass rods, sheets, plates, bars, strips, muntz or yellow metal sheets, sheathing, bolts, piston rods, shafting and bronze rods, tubes and sheets	2c lb.
Brass tubes and tubing, seamless	2c lb.
Brass tubes, brazed, angles and channels	6c lb.
Brass and bronze wire	12½%

LEAD

NOTE—Import duties on lead-bearing ores, flue dust, and mattes of all kinds, lead bullion or base bullion, lead in pigs and bars, lead dross, reclaimed lead and antimonial lead were suspended Feb. 12, 1952, and reimposed on June 26, 1952. Lead scrap duty was reimposed July 1, 1952.

Lead-bearing ores and mattes, n. s. p. f., lead content	¾c lb.
Bullion or base bullion, lead content	1 1/16c lb.
Pigs and bars, lead content	1 1/16c lb.
Reclaimed, scrap, dross, lead content	1 1/16c lb.
Babbitt metal and solder, lead content	1 1/16c lb.
Pipe, sheet, shot, glaziers' lead, and wire	1 5/16c lb.
Type metal and antimonial lead, lead content	1 1/16c lb.
White lead	1.05c lb.
Litharge	1¼c lb.
Red lead	15/16c lb.
Orange mineral	1c lb.

ZINC

NOTE—Import duties on zinc-bearing ores, and on zinc in blocks, pigs and slabs were suspended Feb. 12, 1952, and reimposed on July 24, 1952. Tax on old zinc and dross and skimmings reimposed July 1, 1953.

Zinc-bearing ores, except pyrites containing not more than 3% zinc, zinc content	6/10c lb.
Zinc contained in zinc-bearing ores, n. e. s., not recoverable, zinc content	6/10c lb.
Zinc, old and worn out, fit only for remanufacture	¾c lb.
Dross and skimmings	¾c lb.
Zinc in blocks, pigs, or slabs	7/10c lb.
Zinc in sheets	1c lb.
Zinc sheets, plated with nickel or other base metal, or solutions	1⅛c lb.
Zinc dust	7/10c lb.
Zinc die-casting alloys	12½%
Zinc oxide and leaded zinc oxides containing not more than 25% lead, dry	3/5c lb.
ground in or mixed with oil or water	1c lb.

MISCELLANEOUS METALS AND ORES

Aluminum, metal and alloys, crude, except alloys elsewhere provided for	1½c lb.
Aluminum scrap	free
Aluminum plates, sheets, bars, rods, circles, squares, etc	3c lb.
Antimony ore, antimony content	free
Antimony metal and regulus	2c lb.
Antimony needle or liquidated	¼c lb.
Antimony oxide	1c lb.
Antimony sulphides	½c lb. & 12½%
Arsenic, metallic	3c lb.
Arsenious acid or white arsenic	free
Bauxite, crude*	free
Bauxite, refined	¼c lb.
Bismuth	1⅞%
Bismuth salts and compounds	35%
Beryllium metal and compounds	25%
Beryllium ore	free
Cadmium	3¾c lb.
Cadmium flue dust, cadmium content	free
Chrome ore or chromite	free
Cobalt ore and concentrates, cobalt content	free
Chrome or chromium metal	12½%
Cobalt metal	free
Magnesium, metallic	20c lb.
Magnesium scrap	free
Magnesium alloys, powder, sheets, wire	20c lb. & 10%
Manganese ores, containing over 10% manganese, manganese content	¼c lb., except Cuba, free
Molybdenum ore or concentrates, molybdenum content	35c lb.
Nickel ore, matte and oxide	free
Nickel and alloys, nickel chief value, n. s. p. f., in pigs, ingots, shot, cubes, grains, cathodes, or similar forms	1¼c lb.
Nickel, bars, rods, plates, sheets, castings, strips, wire or electrodes	12½%
Nickel tubes, tubing	6¼%
(if cold rolled, drawn or worked—2½% extra)	
Nickel scrap	free
Platinum, ores, platinum content, oz. troy	free
Platinum, grain, nuggets, sponge and scrap, oz. troy	free
Platinum in ingots, bars, sheets, or plates, not less than ⅛ in. thick, oz. troy	free
Quicksilver or mercury	25c lb.
Selenium and salts	free
Tantalum	12½%
Tin ore, cassiterite, and black oxide of tin, tin content	free
Tin in bars, blocks, pigs, grain, granulated, and scrap, and alloys, chief value tin, n. s. p. f.	free
Tungsten ore or concentrates. tungsten content	50c lb.

*Crude bauxite import duty suspended for two years, effective July 16, 1954.

COPPER PRICE IN U.S. STRAINS UPWARD AS STRIKE IN RHODESIA THREATENS TO CURTAIL WORLD SUPPLY

Primary Aluminum Raised 1c a Lb.; Lead, Zinc Hold Firm; Tin Displays Weakness; Quicksilver Steady; Selenium Up $1 a Lb.

January 12, 1955

COPPER prices were straining at the leash during the month in review while lead and zinc held firm. The only major metal to break through the price barrier was aluminum which advanced 1.00c a pound. Chile threatened to divert blister as well as refined copper from the U. S. to the U. K. and Europe. The Rhodesian copper strike remained unsettled.

Among the other metals tin displayed price weakness, quicksilver was steadier, and selenium advanced $1 a pound.

Copper Supply Tight

Copper supplies remained tight. There was some doubt that domestic producers would be able to prevent an increase from the 30.00c a pound price for electrolytic metal in the face of sharply higher foreign quotations and a strike in the big Northern Rhodesia mines which was expected to cause a more stringent supply situation. It had appeared that labor troubles in Chile might further aggravate the situation but at the last moment a longshoremen's strike, scheduled for January 10, was averted by the Chilean Government. More important, Chile threatened to bypass the U. S. and sell not only its refined but also its blister copper in England and on the Continent.

The Northern Rhodesian African Mineworkers' Union called its members out on strike on January 3. Indications were that for the duration of the strike little copper will be mined. Northern Rhodesia produces about 33,000 tons of copper a month and ranks as the second largest copper producer in the world.

Prices on the London Metal Exchange skyrocketed and on January 10 the mean between the bid and asked price in London for cash copper was equivalent to about 38.37½c a pound. While domestic copper producers, up to this time, were not being swayed by the price gyrations on the LME, the same could not be said of domestic refiners with respect to their buying prices for scrap copper and brass. Copper scrap buying prices quoted by domestic consumers have advanced and declined, in recent weeks, to reflect the ups and downs in the price of copper on the LME.

London Price Equal To 38.37½c

On January 10, the day the London copper price was equivalent to 38.37½c a pound, domestic refiners boosted their bids for copper scrap by 1.00c a pound, offering 28.50c for No. 2 heavy copper and wire. The 28.50c scrap price was equivalent to 33.00c a pound for the electro that will be refined from this scrap and that will be ready for marketing in early April. With copper at the time selling for export at 34.50c to 35.00c a pound f. a. s. New York, custom smelters felt warranted in paying 28.50c for No. 2 scrap.

On January 11, when the London copper price declined, domestic refiners cut their No. 2 copper scrap bid to 28.00c a pound. On the same date, however, electro copper for prompt export was quoted at 35.25c f. a. s. New York.

Chilean Announcement

The Chilean announcement that it would sell not only its refined but also its blister copper in the U. K. and on the Continent was clearly discerned as an effort on the part of the Chilean Government to force a price advance in the domestic market. The Central Bank of Chile was said to have been instructed to divert Chile's metal from the U. S. to England until such time as the U. S. price is higher than 30.00c a pound. Diverting blister from the U. S., however, could create a very serious shortage here. In the first 10 months of 1954, Chile shipped 102,700 tons of blister and 119,600 tons of refined to the U. S.

Higher Domestic Price?

Domestic copper producers were of the opinion that any price rise in the domestic 30.00c price would, in the long run, hurt the competitive position of the metal against the inroads of aluminum and plastics. Some domestic producers have opened their books for February shipment and it is almost a foregone conclusion that they will be unable to book all the business that they will be offered by fabricators at the 30.00c level. Not until consumers know fairly definitely how much copper they can count on getting from their regular suppliers, will sellers in the outside market know how big a premium they will be able to get for the metal they have available for sale.

While the domestic industry generally opposes a price increase, some factors believe an increase might be necessary to assure adequate supplies for U. S.

Lead, Zinc Stockpiling

While the General Services Administration at this writing had not yet entered the market to make its monthly purchases of lead and zinc for the national stockpile, it was believed the GSA would do so shortly.

Lead consumers were buying moderate tonnages although thus far their interest has been chiefly confined to metal for shipment in January. Orders for February shipments are still light. Business for January shipment was being done both at the price of 15.00c a pound New York and at the January average.

Lead Imports Decline

Latest figures released by the Bureau of the Census revealed that U. S. imports of lead in ore (content), base bullion and refined metal in October amounted to 38,537 tons as compared with 47,344 tons in the preceding month, a decrease of 8,807 tons.

For the first 10 months of 1954 imports totaled 381,933 tons and exports for the same period were 545 tons, so that the net imports were 381,388 tons, or an average of about 38,000 tons a month. In all of 1953 the net imports average 45,000 tons a month.

Zinc December Statistics

While zinc continued to better its position statistically during December, one important factor in the industry contended that over-production rather than under-consumption is the greatest deterrent to any improvement in the market. In zinc circles little fault was being found with the rate at which the metal is being used. Actually, some grades such as Special High Grade were in such excellent demand that in many instances

(Continued on page 16)

LATE DEVELOPMENTS, CHANGES

Copper: Crude copper output (primary and secondary) in 1954 totaled 966,484 tons, compared with 1,067,793 tons in 1953. Refined copper deliveries to domestic consumers last year came to 1,206,692 tons as against 1,443,719 tons in 1953. Refined deliveries to the U. S. stockpile in 1954 were about 185,000 tons, compared with around 88,000 tons in 1953. December refined output shot up to 133,523 tons from 116,135 tons in November. At the end of 1954, refined copper stocks in the hands of producers amounted to 47,108 tons, a decrease of 40,604 tons from the stocks at the end of 1953.

Aluminum: Primary aluminum production in 1954 totaled 2,921,174,443 pounds as against 2,504,029,277 pounds in 1953.

Copper Scrap: With copper scrap supplies continuing tight, custom smelters on January 18 raised their buying price 0.50c for No. 2 heavy copper and wire scrap to 28.50c a pound.

Lead, Zinc: General Services Administration on January 18 requested lead and zinc producers to submit offers for the sale of these two metals, both domestically-mined after April 1, 1954, to the Government for its stockpile. Tenders had to be submitted by January 20, with deliveries to be completed by March 15.

Tin: Spot Straits tin was quoted at 86.75c a pound at New York on January 18. Prompt Straits also was quoted at 86.75c.

U. S. Metal Review

(Continued from page 15)

producers found it necessary to ship hot metal to take care of die casters' needs.

Industry factors pointed out that December's output was the highest for any month since March, 1944. The available supply from domestic smelters and from imports was said to be more than the market can absorb even with the improved rate of consumption.

Shipments Higher

Production of all grades of zinc in December totaled 85,166 tons, 5,047 tons more than in the preceding month. For all of 1954, output was only 868,247 tons, however, as against 971,191 tons in 1953. Shipments in December ran to 75,105 tons, 1,969 tons less than in November. The big gain in shipments in 1954 was to the Government's stockpile, which took 108,957 tons whereas in 1953 the total was only 42,332 tons, and thus serving to offset the drop in 1954 shipments to domestic consumers, so that the total shipments for the year to consumers, for export and to the Government came to 925,013 tons or 47,505 tons more than in 1953. Stocks of ail grades of zinc in the hands of producers at the end of December amounted to 124,077 otns as compared with 134,639 tons at the end of November. At the end of May, 1954, stocks had reached the staggering total of 209,828 tons.

Demand for zinc has been fair with Prime Western about the only grade which could be termed spotty. Most of the current buying has been for shipment in January on the basis of 11.50c a pound East St. Louis for the Prime Western.

Tin Price Weaker

Spot Straits tin in the New York market was quoted at 86.25c a pound on January 11, as against the last previously quoted price in this space of 88.00c on December 17. During the December 17-January 11 period, the high of 88.125c was registered on January 3 and the low of 85.625c on December 21.

Domestic consumption of tin was virtually unchanged in September, October and November, according to the U. S. Bureau of Mines. The quantity of tin used in each of the three months was 6,700 long tons. Based upon the first 11 months, tin consumption for 1954 was estimated at 82,000 long tons, of which 55,000 tons would be primary tin, 25,300 tons secondary metal, and 1,700 tons imported tin-base alloys. Industry and Government tin stocks (excluding metal in the national stockpile) decreased from 44,100 long tons on November 1 to 41,200 tons on November 30.

Primary Aluminum Prices Up

Primary aluminum producers advanced their pig and ingot prices 1.00c. The rise was initiated by Reynolds Metals Co. on January 10 and Kaiser and Alcoa shortly followed. Aluminum ingot, 99 per cent plus, rose to 23.20c a pound and aluminum pig, 99 per cent, to 21.50c.

Secondary aluminum ingot prices also were hiked 0.50c a pound on January 12, reflecting the advance in primary aluminum and the higher cost of aluminum scrap to smelters.

Quicksilver Steady

Quicksilver has displayed a steady tone since the first of the year. Spot European metal was quoted at $323 to $325 per flask of 76 pounds, to which level it advanced on December 28 as compared with the last previously quoted range in this space of $320 to $322, established on December 21.

There was an absence of offerings from European producers and shipments of quicksilver from Mexico were being delayed by new Mexican export licensing procedures.

Selenium Up $1 a Pound

The price of selenium was increased $1 a pound, effective from the first of the year, reflecting increased consumption while the supply position remained static. Producers of the commercial grade now charge distributors $6 a pound. Consumers who buy from distributors will now have to pay $7.25 a pound, in 100-pound lots.

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NATIONAL BUSINESS PRESS **425 West 25th Street, New York 1, N. Y.**

Daily Metal Quotations in December, 1954

The following quotations are taken from the Daily Metal Reporter

(In Cents Per Pound)

	Copper					Tin Straits New York		Lead		Zinc					Alum-inum	Anti-mony	Silver
December	Producers' Price Del. Conn.	Custom Smelters' or Outside Price	Electro f. o. b. Refinery	Lake Del.	Average Electrolytic Export Price f. a. s. N. Y.	Spot	Prompt	New York	Outside St. Louis	Prime West. f. o. b. E. St. Louis	Prime West. Del. N. Y.	Brass Spec. f. o. b. E. St. Louis	High Grade Delivered	Spec. High Grade Delivered	Virgin 99%	Domestic Spot 99.5% f.o.b. Laredo	(Cents Per Ounce) New York
1	30.00	30.00	29.70	30.00	32.875	90.25	90.25	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
2	30.00	30.00	29.70	30.00	33.00	90.25	90.25	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
3	30.00	30.00	29.70	30.00	33.00	90.00	90.00	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
4	30.00	30.00	29.70	30.00	33.00	....	....	15.00	14.90	11.50	12.00	11.75	12.85	13.00	22.20	28.50	....
6	30.00	30.00	29.70	30.00	33.00	89.875	89.875	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
7	30.00	30.00	29.70	30.00	33.375	89.875	89.875	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
8	30.00	30.00	29.70	30.00	33.375	90.00	90.00	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
9	30.00	30.00	29.70	30.00	33.375	90.00	90.00	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
10	30.00	30.00	29.70	30.00	33.375	89.875	89.875	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
11	30.00	30.00	29.70	30.00	33.375	....	....	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	....
13	30.00	30.00	29.70	30.00	33.375	89.50	89.50	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
14	30.00	30.00	29.70	30.00	33.375	89.375	89.375	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
15	30.00	30.00	29.70	30.00	33.375	89.25	89.25	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
16	30.00	30.00	29.70	30.00	33.375	89.00	89.00	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
17	30.00	30.00	29.70	30.00	33.375	88.00	88.00	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
18	30.00	30.00	29.70	30.00	33.375	....	....	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	....
20	30.00	30.00	29.70	30.00	33.50	87.50	87.50	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
21	30.00	30.00	29.70	30.00	33.50	85.625	85.625	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
22	30.00	30.00	29.70	30.00	33.50	86.75	86.75	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
23	30.00	30.00	29.70	30.00	33.50	87.25	87.25	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
24	30.00	30.00	29.70	30.00	33.50	87.25	87.25	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
27	30.00	30.00	29.70	30.00	33.625	87.25	87.25	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
28	30.00	30.00	29.70	30.00	33.625	87.125	87.125	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
29	30.00	30.00	29.70	30.00	33.625	87.375	87.375	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
30	30.00	30.00	29.70	30.00	33.75	87.75	87.75	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
31	30.00	30.00	29.70	30.00	33.75	88.00	88.00	15.00	14.80	11.50	12.00	11.75	12.85	13.00	22.20	28.50	85.25
AV.	**30.00**	**30.00**	**29.70**	**30.00**	**33.38**	**88.571**	**88.571**	**15.00**	**14.80**	**11.50**	**12.00**	**11.75**	**12.85**	**13.00**	**22.20**	**28.50**	**85.25**
HI.	**30.00**	**30.00**	**29.70**	**30.00**	**34.50**	**90.25**	**90.25**	**15.00**	**14.80**	**11.50**	**12.00**	**11.75**	**12.85**	**13.00**	**22.20**	**28.50**	**85.25**
LO.	**30.00**	**30.00**	**29.70**	**30.00**	**35.25**	**85.625**	**85.625**	**15.00**	**14.80**	**11.50**	**12.00**	**11.75**	**12.85**	**13.00**	**22.20**	**28.50**	**85.25**

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Copper Brands

Deliverable Against Commodity Exchange, Inc.

Brand or Marks	Producer	Grade
B. E. R.	American Smelting & Refining Co. (Baltimore, Md.)	Electrolytic
P. A.	American Smelting & Refining Co. (Maurer, N. J.)	Electrolytic
T	American Smelting & Refining Co. (Tacoma, Wash.)	Electrolytic
B. & M.	Anaconda Copper Mining Co.	Electrolytic
AE	Andes Copper Mining Co.	Electrolytic
BOLIDEN	Bolidens-Gruvaktiebolag	Electrolytic
C. C. R.	Canadian Copper Refiners Ltd. (Montreal)	Electrolytic
C de P Peru	Cerro de Pasco Corporation	Electrolytic
C. C. C.	Chile Copper Company	Electrolytic
F E C	Falconbridge Nickel Mines, Ltd.	Electrolytic
K U E	Kennecott Copper Corp.	Electrolytic
L. M. C.	Lewin Metals Corporation	Electrolytic
M U F	Mufulira Copper Mines, Ltd.	Electrolytic
N A	Norddeutsche Affinerie	Electrolytic
O R C	Ontario Refining Co., Ltd.	Electrolytic
A. L. S.	Philps Dodge Refining Corp. (For Adolph Lewisohn Selling Corp.)	Electrolytic
L. N. S.	Phelps Dodge Refining Corp.	Electrolytic
P • D	Phelps Dodge Corporation	Electrolytic
N. E. C.	Raritan Copper Works	Electrolytic
R E C	Rhokana Corporation	Electrolytic
B O R	Rudnici Bakra i Topionice	Electrolytic
U M K	Union Miniere du Haut Katanga	Electrolytic
D R W	†United States Metals Refining Co.	Electrolytic
AMCO	†United States Metals Refining Co.	Electrolytic
OFHC	†United States Metals Refining Co.	Electrolytic
W E K	Zinnwerke Wilhelmsburg G.m.b.H.	Electrolytic

†Subsidiary, The American Metal Co., Ltd.

Brand or Marks	Producer	Grade
C & H	Calumet & Hecla Consolidated Copper Co.	Lake
C. R.	Copper Range Company	Lake
Q. M. CO.	Quincy Mining Company	Lake

Brand or Marks	Producer	Grade
B. C. R.	British Copper Refiners, Ltd.	Fire Refined High Conductivity
N. H. E.	Nassau Smelting & Refining Co., Inc.	Fire Refined High Conductivity
A M CO R H C	United States Metals Refining Company	Fire Refined High Conductivity

Brand or Marks	Producer	Grade
* * * (3 Star)	Braden Copper Company	Fire Refined (other than Lake & Fire Refined High Conductivity)
K C M	Kennecott Copper Corporation	
M T D	Messina (Transvaal) Development Co.	
P. D. M. R	Phelps Dodge Corporation †United States Metals Refining Company	

Official List of Approved Refiners

Whose CATHODES are deliverable against Commodity Exchange, Inc., Copper Contract

American Smelting & Refining Co.
Anaconda Copper Mining Co.
Andes Copper Mining Co.
Bolidens Gruvaktiebolag
Canadian Copper Refiners, Ltd.
Cerro de Pasco Copper Corp.
Chile Copper Company
Consolidated Mining & Smelting Co.
Falconbridge Nickel Mines, Ltd.
Kennecott Copper Corp.
Lewin Metals Corp.
Mufulira Copper Mines, Ltd.
Norddeutsche Affinerie
Ontario Refining Co., Ltd.
Phelps Dodge Refining Corp.
Phelps Dodge Corporation
Raritan Copper Works
Rhokana Corporation
Rudnici Bakra i Topionice
Union Miniere du Haut Katanga
United States Metals Refining Co.
Zinnwerke Wilhelmsburg G.m.b.H.

Lead Brands

Refined At	Producer	Brand Mark
Federal, Ill., U. S.	American Smelting & Refining Co.	*ALTON
Carteret, N. J., U. S.	United States Metals Refining Co.	**A M CO
Monterrey, Mexico	American Smelting & Refining Co.	*ASARCO MONTERREY
Port Pirie, Australia	Broken Hill Associated Smelters	*B.H.A.S.
Indianapolis, Ind., U. S.	National Lead Co., American Lead Plant	†aBLUE ARROW AMERICAN LEAD CORP
Braubach a/Rhein, Germany	Blei-und Silberhutte Braubach	*Braubach dopp. raff. Deutschland
Idaho, U. S.	Bunker Hill Smelter	*BUNKER "C" HILL
Orya, Peru	Cerro de Pasco Copper Corp.	*CERRO PERU
Collinsville, Ill., U. S.	St. Louis Smelting & Refining Co.	†aCHEMICAL ST. L. S. & R. CO.
Monterrey, N. L., Mexico	Compania Metalurgica Penoles, S.A.	**C.M.F. y A.M.
Alton, Ill., U. S.	St. Joseph Lead Company	*DOE RUN
Oker, Germany	Unterharzer Berg- und Huttenwerke	*HARZ 99.985, HARZ 99.9
Joplin, Mo., U. S.	Eagle-Picher Mining & Smelting Co.	*EAGLE-PICHER
Kamioka, Japan	Mitsui Mining Co.	*E.M.K.
Stolberg, Rhineland, Germany	Stolberger Zinc Aktiengesellschaft fur Bergbau und Hattenbetrieb	*Eschweiler raffine
Federal, Ill., U. S.	American Smelting & Refining Co.	*FEDERAL
Chicago, Ill., U. S.	Goldsmith Bros. Smelting & Refining Co.	†G B
Hoboken, Belgium	Societe Generale Metallurgique de Hoboken	*H.E.R. Escaut
Alton, Ill., U. S.	St. Joseph Lead Company	*HERCULANEUM
Omaha, Neb., U. S.	International Smelting & Refining Co.	*ILR
Monsanto, Ill., U. S.	Lewin-Mathes Co.	†MONSANTO
Monteponi, Italy	Societa di Monteponi	*Monteponi
San Gavino Monreale, Sardinia, Italy	Montevecchio Societa Italiana del Piombo e dello Zinco	*Montevecchio
Hammond, Ind., U. S.	Metals Refining Company	†M R CO METALS REFINING CO.
Omaha, Neb., U. S.	American Smelting & Refining Co.	*OMAHA & GRANT
Overpelt, Belgium	Compagnie des Metaux d-Overpelt-Lommel et de Corphalie, S.A.	*Overpelt extra-raffine O.V.-L.L.-Dur.
Megrine, Tunis	Ste. Min. & Metall. de Penarroya	*Penarroya
Penarroya, Sopwith & Cartagena, Spain	Ete Min. & Met. de Penarroya	*Penarroya
Perth Amboy, N. J., U. S.	American Smelting & Refining Co.	*PERTH AMBOY
Genoa, Italy	Societa di Pertusola	*Pertusola
Alton, Ill., U. S.	St. Joseph Lead Company	*ST. JOE
Collinsville, Ill., U. S.	St. Louis Smelting & Refining Co.	†aST. L. S. & R. CO.
Selby, Calif., U. S.	American Smelting & Refining Co.	*SELBY
Trail, B. C., Canada	Consolidated Mining & Smelting Co. of Canada, Ltd	*TADANAC
Baelen-Usines, Belgium	Ste des Mines and Founderies de Zinc de la Vieille-Montagne Angiem	*Three Stars Vieille-Montagne Bar
Mexica, Yugoslavia	Central European Mines, Limited	*TRECA
Perth Amboy, N. J., U. S.	American Smelting & Refining Co.	*TSUMCO
Hoboken, Belgium	The Tsumeb Corporation	*TSUMCO
Midvale, Utah, U. S.	United State Smelting, Refining & Mining Company	*USS CO
E. Chicago, Ind., U. S.	United States Smelting, Refining & Mining Company	*U S S CO ELECTRO
Norfolk, Va., U. S.	Virginia Lead Smelting Corp., The	†aVIRGINIA
Staten Island, N. Y., U. S. A.	Nassau Smelting & Refining Co.	Nassau Blue
Newark, N. J., U. S. A.	Hudson Smelting & Refining Co.	Hudson
Philadelphia, Pa., U. S. A.	Bers & Co., Inc.	Schuylkill

*Deliverable against Commodity Exchange, Inc., Lead Contracts without Certificate of Assay.

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aSubsidiary of National Lead Co.

Copper Statistics Reported by Copper Institute

Combined Totals in U. S. A. and Outside U. S. A.

(In tons of 2,000 pounds)

	Crude Production		Refined	Deliveries to	Refined Stock	Stock Increases or Decreases		
	Primary	Secondary	Production	Customers	End of Period	Blister	Refined	Total
1951 Total	2,343,422	62,270	2,424,802	2,381,237	223,731	—19,110	+34,772	+15,662
1952 Total	2,362,887	55,858	2,385,538	2,451,093				
1953 Total	2,397,540	123,210	2,514,969	2,275,060	369,723	+ 7,836	+180,762	+188,598
1954								
Jan.	191,564	7,835	196,653	169,386	388,631	+ 2,746	+20,389	+23,135
Feb.	177,075	7,096	174,360	163,474	393,792	+ 9,811	+ 5,161	+14,972
Mar.	196,870	8,254	211,370	189,030	405,563	— 6,241	+11,771	+ 5,525
April	195,823	6,662	200,364	203,772	397,593	+ 2,121	— 7,970	— 5,849
May	189,670	6,922	203,967	226,202	337,345	— 7,375	—60,248	—67,623
June	198,616	11,482	200,736	236,575	249,832	+ 9,362	—87,513	—78,151
July	196,588	9,955	212,922	202,717	239,479	— 6,379	—10,353	—16,732
Aug.	175,481	9,585	204,338	195,880	230,713	—19,272	— 8,766	—28,038
Sept.	185,985	7,674	195,363	199,432	219,714	— 704	—10,999	—11,703
Oct.	206,966	10,338	196,654	212,486	210,432	+20,650	— 9,282	+11,363
Nov.	221,777	9,410	222,676	226,058	216,687	+ 8,511	+ 5,840	+13,991
Dec.	215,684	12,605	242,147	229,154	228,637	—13,858	+11,950	— 1,908
1954 Total	2,358,632	107,818	2,466,277	2,453,812	228,637	+ 173	—139,605	—139,432
In U. S. A.								
1951 Total	964,589	56,910	1,199,784	1,367,787	71,528	.....	+22,488	.....
1952 Total	961,886	46,003	1,189,112	1,445,765				
1953 Total	957,434	109,972	1,395,003	1,443,719	89,193	.....	+30,335	.....
1954								
Jan.	76,912	7,304	111,555	77,091	108,121	.....	+20,409	.....
Feb.	68,034	6,394	103,496	87,795	118,417	.....	+10,296	.....
March	73,429	7,671	117,546	95,795	125,759	.....	+ 7,342	.....
April	70,977	6,486	112,617	104,579	124,523	.....	— 1,236	.....
May	71,571	6,660	108,403	111,005	82,111	.....	—42,412	.....
June	74,113	11,216	112,121	106,252	69,181	.....	—12,930	.....
July	66,070	9,597	107,095	97,436	68,921	.....	— 260	.....
Aug.	52,825	8,784	103,901	92,475	58,387	.....	—10,534	.....
Sept.	61,827	7,168	87,874	88,198	47,666	.....	—10,721	.....
Oct.	68,479	9,988	92,258	105,293	32,515	.....	—15,151	.....
Nov.	88,785	9,052	116,135	118,925	37,094	.....	+ 3,804	.....
Dec.	85,581	12,225	133,523	119,626	47,108	.....	+10,014	.....
1954 Total	863,939	102,545	1,311,249	1,206,692	47,108	.....	—40,604	.....
Outside U. S. A.								
1951 Total	1,378,883	5,360	1,225,018	1,013,450	152,203	.....	+12,284	.....
1952 Total	1,401,001	9,582	1,196,426	1,005,329				
1953 Total	1,441,874	13,238	1,119,966	831,341	280,530	.....	+150,427	.....
1954								
Jan.	114,652	531	85,100	91,941	280,510	.....	— 20	.....
Feb.	109,041	702	70,864	74,457	275,375	.....	— 5,135	.....
Mar.	123,441	583	93,824	93,235	279,804	.....	+ 4,429	.....
April	124,846	176	87,747	99,193	273,070	.....	— 6,734	.....
May	118,099	262	95,564	115,197	255,234	....	—17,836	.....
June	124,503	266	88,615	130,323	180,651	.....	—74,583	.....
July	130,518	358	105,827	105,781	170,558	.....	—10,093	.....
Aug.	122,656	801	100,437	103,405	172,326	.....	+ 1,768	.....
Sept.	125,158	506	107,489	110,234	172,048	.....	— 278	.....
Oct.	138,487	350	104,396	107,193	177,917	.....	+ 5,869	.....
Nov.	132,992	358	106,541	107,133	179,593	.....	+ 1,676	.....
Dec.	130,103	380	108,624	109,528	181,529	.....	+ 1,936	.....
1954 Total	1,494,693	5,273	1,155,028	1,247,120	181,529	.....	—99,001	.....

*Excluding Russia, Yugoslavia, Norway, Sweden, Japan, Australia.

Electrolytic Copper

Price, Del. Conn. Valley
Monthly Average Prices
(Cents Per Pound)

	1951	1952	1953	1954
Jan.	24.50	24.50	24.50	29.88
Feb.	24.50	24.50	25.46	29.88
Mar.	24.50	24.50	31.49	29.93
Apr.	24.50	24.50	30.59	29.98
May	25.31	27.829	29.72	30.00
June	24.50	24.50	29.94	30.00
July	24.50	24.50	29.92	30.00
Aug.	24.50	24.50	29.69	30.00
Sept.	24.50	24.50	29.75	30.00
Oct.	24.50	24.50	29.80	30.00
Nov.	24.50	24.50	29.88	30.00
Dec.	24.50	24.50	29.88	30.00
Aver.	24.50	24.50	29.15	29.97

Lake Copper

Producers' Price, Delivered
Monthly Average Prices
(Cents Per Pound)

	1951	1952	1953	1954
Jan.	24.625	24.625	24.625	30.00
Feb.	24.625	24.625	24.625	30.00
Mar.	24.625	24.625	32.00	30.00
Apr.	24.625	24.625	32.23	30.00
May	24.625	24.625	Nom	30.00
June	24.625	24.625	30.125	30.00
July	24.625	24.625	30.125	30.00
Aug.	24.625	24.625	30.125	30.00
Sept.	24.625	24.625	30.125	30.00
Oct.	24.625	24.625	30.125	30.00
Nov.	24.625	24.625	30.125	30.00
Dec.	24.625	24.625	30.038	30.00
Aver.	24.625	24.625	29.47	30.00

Export Copper

Electrolytic f.a.s. New York
Monthly Average Prices
(Cents Per Pound)

	1951	1952	1953	1954
Jan.	24.50	27.50	34.825	28.635
Feb.	24.50	27.50	34.825	28.59
Mar.	24.50	27.50	35.131	29.544
Apr.	24.50	27.50	35.89	29.93
May	24.50	24.50	29.89	30.00
June	27.50	34.415	29.75	30.00
July	27.50	34.537	29.692	30.00
Aug.	27.50	34.825	29.075	30.00
Sept.	27.50	34.825	29.00	30.80
Oct.	27.50	34.825	29.053	33.22
Nov.	27.50	34.825	28.875	32.832
Dec.	27.50	34.825	28.774	33.37
Aver.	26.318	31.742	31.218	30.58

Fabricators' Copper Statistics

(In Tons of 2,000 Pounds)

	Fabricators' Stocks of Refined Cop.	Unfilled Purchases of Refined by Fab. from Producers	Fabricators' Working Stocks	Unfilled Sales by Fabricators to Customers	Actual Copper Consmd. by Fabricators	Excess Fabricators' Stocks Over Orders Bkd.
1948						
Total	.....	.....	.....	.....	1,394,307	.....
1949						
Total	.....	.....	.....	.....	1,053,225	.....
1950						
Total	.....	.....	.....	.....	1,438,327	.....
1951						
Total	.....	.....	.....	.....	1,392,111	.....
1952						
June	245,730	39,513	286,576	299,124	107,709	—300,457
July	281,064	53,716	293,220	303,765	82,419	—262,205
Aug.	298,849	50,399	287,512	294,280	119,280	—232,544
Sept.	308,036	47,188	295,275	285,465	122,934	—225,516
Oct.	311,676	45,970	290,634	285,114	125,325	—218,102
Nov.	315,608	33,710	292,028	280,716	130,031	—223,426
Dec.	333,455	32,652	292,157	275,312	117,303	—201,362
Total	.....	.....	.....	.....	1,389,451	—.....
1953						
Jan.	321,212	43,195	294,467	275,736	134,203	—205,796
Feb.	312,177	52,990	290,367	296,760	123,850	—221,960
Mar.	319,356	47,685	292,447	291,979	122,980	—217,385
Apr.	342,771	53,501	295,096	298,532	116,319	—197,356
May	364,197	49,952	293,794	285,425	126,972	—165,070
June	363,020	40,759	297,387	268,099	132,615	—161,707
July	375,629	39,936	302,113	259,641	91,826	—146,189
Aug.	366,244	42,490	305,204	235,893	113,250	—132,363
Sept.	358,081	38,593	307,612	206,476	111,805	—117,414
Oct.	352,091	31,035	305,431	187,438	116,259	—109,743
Nov.	350,804	34,380	305,877	165,047	102,258	— 85,740
Dec.	380,881	25,022	309,664	170,917	83,652	— 74,678
Total	.....	.....	.....	.....	1,375,869	.....
1954						
Jan.	355,632	26,423	307,014	142,588	100,805	— 67,547
Feb.	349,661	26,227	305,670	122,999	94,975	— 52,781
Mar.	341,693	28,836	304,065	123,887	103,796	— 57,423
Apr	341,616	30,677	302,391	124,559	104,943	— 54,657
May	349,796	33,210	305,504	123,039	102,810	— 45,537
June	351,518	43,723	304,833	122,218	104,531	— 31,810
July	370,287	41,104	307,352	130,576	80,751	— 26,537
Aug.	359,474	58,007	302,423	131,514	102,966	— 16,456
Sept.	341,726	50,650	300,603	148,515	106,628	— 56,742
Oct.	330,787	50,240	299,068	135,140	116,232	— 53,181
Nov.	335,315	55,517	309,017	137,076	114,392	— 47,341

Scrap Copper Receipts by Custom Smelters and Refineries in United States*

(In Short Tons)

	1943	1946	1947	1948	1949	1950	1951	1952	1953	1954
Jan.	3,247	3,077	7,080	10,172	17,084	15,763	6,640	4,528	6,486	9,859
Feb.	2,877	1,576	5,394	11,890	20,238	12,500	5,153	3,633	10,337	8,490
Mar.	4,398	2,116	9,187	11,954	20,678	13,538	7,912	5,243	19,991	9,738
Apr.	5,249	2,750	13,065	15,125	15,968	12,304	8,553	6,214	16,584	9,004
May	4,427	2,455	14,264	16,357	14,237	8,749	8,458	8,033	10,857	8,687
June	4,733	2,230	9,883	11,176	8,809	20,523	8,628	4,425	10,945	13,309
July	5,342	2,581	8,578	8,370	7,782	10,040	6,642	5,188	9,063	10,260
Aug.	5,353	2,117	8,572	17,081	8,246	10,452	6,113	5,003	7,137	10,100
Sept.	4,504	4,832	10,611	16,001	10,980	4,903	3,561	4,667	9,042	10,641
Oct.	4,615	2,932	8,532	10,854	6,401	9,459	3,336	4,602	10,065	11,662
Nov.	4,030	3,079	8,070	7,625	15,347	9,237	3,179	4,724	7,815	10,879
Dec.	3,411	4,081	9,154	11,826	10,533	7,178	4,538	6,208	11,476	14,876
Total 51,866		33,826	112,386	147,931	156,303	142,067	71,812	62,470	129,798	127,449

*As compiled by Copper Institute.

Brass and Bronze Ingot Monthly Shipments

(Net Tons)

The following figures showing the combined shipments of ingot brass and bronze are compiled by the Ingot Brass and Bronze Industry and represent in excess of 95 per cent of the deliveries of the entire industry.

	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Jan.	43,569	41,021	29,196	27,841	26,998	19,456	18,874	28,416	28,315	24,423	20,661
Feb.	43,340	39,297	24,580	24,686	22,487	15,026	18,487	27,168	24,211	25,429	19,920
Mar.	45,068	41,988	27,176	27,477	24,282	14,550	22,494	31,997	23,890	28,256	23,653
Apr.	43,151	40,118	30,228	24,577	25,177	10,695	22,118	30,472	22,547	25,044	24,746
May	45,418	37,262	27,333	19,525	28,716	11,114	23,643	33,267	21,740	21,660	22,269
June	40,677	32,613	31,349	16,929	24,401	9,696	25,093	33,817	21,274	20,818	22,348
July	40,532	27,995	26,677	16,728	20,456	10,220	21,609	32,016	18,947	19,321	17,074
Aug.	40,957	25,372	27,896	18,589	24,098	14,194	26,689	25,285	21,807	20,156	21,684
Sept.	38,333	20,165	27,390	19,025	23,641	16,208	28,811	22,285	22,770	21,463	22,464
Oct.	41,009	23,527	31,461	22,806	21,559	18,026	32,240	23,124	25,811	22,280	24,080
Nov.	38,845	22,966	29,232	21,666	21,731	18,488	31,748	23,544	23,441	21,860	23,061
Dec.	35,513	20,488	27,206	23,862	20,954	17,960	28,575	20,987	22,983	20,541	21,273
Total ...	496,412	372,812	339,724	263,711	279,500	175,643	303,563	332,378	277,736	271,251	263,233
Aver.	41,368	31,608	28,310	21,976	23,292	14,637	25,297	27,615	23,145	22,604	21,936

Mine Production of Copper in United States

(U. S. Bureau of Mines)

(In short tons)

	Eastern	Missouri	Western	Total
1950				
Ttl.	40,105	2,982	866,250	885,942
1951				
Ttl.	41,119	2,422	884,788	928,330
1952				
Ttl.	36,758	1,726	885,985	924,469
1953				
Oct.	3,604	219	76,146	80,005
Nov.	3,043	180	71,942	75,165
Dec.	3,482	170	73,367	77,019
Ttl.	38,900	2,237	885,174	926,448
1954				
Jan.	3,077	157	71,453	74,687
Feb.	2,949	193	62,165	65,307
Mar.	3,560	158	67,558	71,276
Apr.	3,047	163	65,187	68,397
May	3,136	151	68,168	71,455
June	3,228	154	69,577	72,959
July	2,976	139	63,436	66,551
Aug.	2,947	155	48,566	51,668
Sept.	3,427	157	58,527	62,111
Oct.	3,683	150	67,382	71,215
Nov.	3,660	136	75,412	79,208
Dec.	4,156	137	77,124	81,417
Ttl.	39,846	1,850	794,555	836,251

Average Custom Smelters' Scrap Buying Prices

(Cents per pound del. refinery for 60,000 lbs. of each grade)

	No. 1 Copper Scrap	No. 2 Copper Scrap	Light Copper Scrap	Refinery Brass*
1953				
Nov.	.25.00	23.00	21.50	19.50
Dec.	..24.46	22.73	21.23	19.50
Av.	..33.955	20.405	20.855	20.036
1954				
Jan.	..23.48	21.98	20.48	19.22
Feb.	..24.00	22.50	21.00	20.00
Mar.	.25.84	23.97	22.10	21.09
Apr.	..26.42	24.92	23.42	21.77
May	..27.04	25.54	24.04	22.58
June	.27.125	25.625	24.125	22.875
July	..27.09	25.59	24.09	22.93
Aug.	. 27.12	25.62	24.12	23.74
Sept.	27.51	26.01	24.51	24.62
Oct.	..28.02	26.52	25.02	24.965
Nov.	..28.55	27.05	25.55	25.43
Dec.	..28.85	27.35	25.85	25.82
Av.	..26.75	25.22	23.69	22.92

*Of dry content for material having a dry copper content in excess of 60%.

Brass Ingot Makers' Scrap Copper Buying Prices

(Average Prices)

(Cents per pound for carload lots del. consumers' works)

	No. 1 Copper Scrap	No. 2 Copper Scrap	No. 1 Composition	Heavy Yellow Brass
1953				
Nov.	.25.00	23.50	18.25	13.75
Dec.	..24.77	22.15	18.17	13.67
Av.	.. 23.524	21.934	18.862	14.127
1954				
Jan.	..23.68	22.02	18.08	13.61
Feb.	..24.50	23.00	17.75	13.50
Mar.	.25.53	24.03	18.49	14.16
Apr.	..26.39	24.89	20.02	15.35
May	..27.03	25.53	21.50	16.50
June	.27.01	25.51	21.50	16.50
July	..26.90	25.38	21.40	16.69
Aug.	. 26.81	25.25	21.64	17.15
Sept.	.27.01	25.51	21.85	17.35
Oct.	..27.675	26.175	22.70	17.78
Nov.	..28.07	26.57	23.20	18.07
Dec.	..28.50	27.00	23.71	18.21
Av.	..26.59	25.07	20.99	16.24

United States Lead Statistics of Primary Refineries

(American Bureau of Metal Statistics)
(In tons of 2,000 lbs.)

	Stock At Beginning	Production Primary & Secondary	Total Supply	Stock At End	Domestic Shipments
1948	21,328	511,356	532,684	38,644	490,630
1949	38,644	542,676	581,320	70,424	355,905
1950	70,424	571,763	642,187	35,619	499,637
1951	35,619	486,874	522,493	25,339	496,184
1952	.....	532,778	558,117	.....	492,094
1953					
June	63,879	36,880	100,759	56,569	44,140
July	56,569	40,210	96,779	61,017	35,652
August	61,017	38,022	99,039	58,103	40,836
September	58,103	42,154	100,257	58,490	41,598
October	58,490	44,741	103,231	58,236	44,987
November	58,236	52,562	110,798	67,494	43,234
December	67,494	48,687	116,181	81,152	35,007
Total	.....	533,883	577,443	.....	488,437
1954					
January	81,152	48,518	129,670	92,496	37,108
February	92,496	42,046	134,542	97,981	36,551
March	97,981	50,808	148,789	100,927	47,837
April	100,927	46,730	147,657	100,441	47,161
May	100,441	49,139	149,580	109,302	40,183
June	109,302	42,317	151,619	104,626	46,987
July	104,626	35,716	140,342	93,030	37,402
August	93,030	44,089	137,119	84,429	43,402
September	84,429	47,762	132,191	93,358	30,891
October	93,358	51,276	144,634	95,496	36,307
November	95,496	46,711	142,207	94,387	34,913

In instances where the figures are not in balance it is due to shipments to other than domestic consumers.

Industrial Classification of Domestic Lead Shipments

(American Bureau of Metal Statistics) (In tons of 2,000 lbs.)

	Cable	Amm.	Foil	Batt'y	Brass Making	Sundries	Jobbers	Unclassified
1948	114,253	42,080	2,258	97,637	4,921	41,524	8,076	215,150
1949	56,273	12,443	1,139	72,475	3,190	37,549	4,117	168,719
1950	66,646	28,854	3,304	93,297	6,374	60,118	10,450	230,594
1951	70,149	32,099	2,063	75,337	5,583	48,248	3,550	259,155
1952								
June	5,981	3,174	60	6,492	235	3,750	668	19,143
July	4,654	3,677	175	8,339	450	6,071	663	25,676
Aug.	6,330	2,401	100	7,773	276	4,540	685	19,164
Sept.	7,899	3,224	80	9,929	226	4,282	458	19,720
Oct.	7,548	2,475	60	7,221	480	3,668	318	19,200
Nov.	5,714	2,434	150	5,855	595	7,927	514	25,072
Dec.	5,536	2,594	110	5,840	385	3,319	253	21,333
Total	74,616	30,809	1,374	77,238	5,160	50,943	5,671	246,283
1953								
Jan.	5,183	1.554	186	5,567	352	3,763	204	18,720
Feb.	6,248	4.509	61	6,098	438	3,267	417	15,773
Mar.	6,175	2,796	323	7.011	415	5,641	509	19,372
Apr.	5,833	3,103	102	8,369	295	3,711	453	17,621
May	6,829	3,450	370	8,480	752	5,118	605	23,310
June	6,420	3,315	290	7,018	528	5,892	196	20,481
July	5,123	3,161	35	6,304	205	5,047	168	15,609
Aug.	5,226	2,335	120	9.435	745	5,382	268	17,325
Sept.	6,494	2,162	105	7,274	1,088	5,261	199	19.015
Oct.	9,612	2,782	160	6,346	307	4,628	1,987	19,165
Nov.	6,920	3,352	312	4,452	385	4,876	982	21,955
Dec.	6,220	1,896	72	3,985	206	3,350	402	18,876
Total	76,283	34,415	2,136	80,339	5,716	55,936	6,390	227,222
1954								
Jan.	6,273	2,955	....	5,077	964	5,051	628	16,160
Feb.	6,040	2,170	....	5,890	798	3,682	254	17,717
Mar.	7,620	2,405	252	6,663	149	6,818	492	23,438
Apr.	6,207	2,550	361	6,341	308	5,194	342	25,798
May	6,030	2,310	276	5,635	250	4,621	1,020	20,041
June	6,116	3,700	122	5,711	406	6,525	1,114	23,293
July	4,000	1,500	...	6,690	415	4,121	861	19,608
Aug.	8,799	3,358	146	6,111	838	5,377	1,152	17,621
Sept.	4,602	1,653	564	4,110	20	4,667	851	14,424
Oct.	6,142	1,970	657	4,172	383	4,581	829	17,573
Nov.	5,816	3,795	333	3,898	520	3,202	721	16,628

Lead Prices at New York

(Common Grade)
Monthly Average Prices
(Cents per pound)

	1951	1952	1953	1954
Jan.	17.00	19.00	14.192	13.26
Feb.	17.00	19.00	13.50	12.82
Mar.	17.00	19.00	13.404	12.94
Apr.	17.00	18.92	12.64	13.91
May	17.00	15.731	12.75	14.00
June	17.00	15.26	13.413	14.11
July	17.00	16.00	13.683	14.00
Aug.	17.00	16.00	14.00	14.06
Sept.	17.00	16.00	13.74	14.60
Oct.	18.926	14.426	13.50	14.975
Nov.	19.00	14.18	13.50	15.00
Dec.	19.00	14.125	13.50	15.00
Av.	17.494	16.47	13.485	14.06

Lead Sheet Prices

(To Jobbers, Full Sheets)
Monthly Average Prices
(Cents per pound)

	1951	1952	1953	1954
Jan.	22.00	24.00	19.192	18.26
Feb.	22.00	24.00	18.50	17.82
Mar.	22.00	24.00	18.404	17.94
Apr.	22.00	23.92	17.64	18.91
May	22.00	20.81	17.75	19.00
June	22.00	20.65	19.413	19.11
July	22.00	21.00	18.683	19.00
Aug.	22.00	21.00	19.00	19.06
Sept.	22.00	21.00	18.74	19.60
Oct.	22.44	19.48	18.50	19.975
Nov.	24.00	19.18	18.50	20.00
Dec.	24.00	19.125	18.50	20.00

Battery Shipments

The following table shows replacement battery shipments in the United States as compiled by the Business Information Division of Dun & Bradstreet, Inc., for the Association of American Battery Manufacturers.

(In thousands of units)

	1951	1952	1953	1954
Jan.	1,979	1,639	1,571	1,788
Feb.	1,469	963	1,162	1,422
Mar.	1,176	769	1,202	1,194
Apr.	1,892	850	1,245	1,150
May	1,480	1,137	1,455	1,391
June	1,443	1,535	2,004	1,834
July	1,705	2,526	2,528	2,288
Aug.	2,239	2,905	2,707	2,481
Sept.	2,172	2,874	2,852	2,728
Oct.	2,640	3,112	2,825	2,667
Nov.	2,232	2,168	2,173	2,407
Dec.	1,792	1,975	1,890	....
Total	22,219	22,453	23,614	....

Lead Stocks at Primary U. S. Smelters and Refiners

(American Bureau of Metal Statistics)

(In tons of 2,000 lbs.)

	In ore and matte and in process at smelters	— In base bullion (lead content) — At smelters & refineries	In transit to refineries	In process at refineries	Refined pig lead	Antimonial lead	Total Stocks
1949							
Jan. 1	76,373	9,697	4,101	17,939	29,050	9,594	146,754
1950							
Jan. 1	95,481	16,364	3,696	15,651	61,329	9,095	201,526
1951							
Jan. 1	69,757	11,993	4,959	15,341	28,894	6,725	137,669
1952							
Jan. 1	67,817	11,315	3,909	15,700	18,518	6,821	124,080
1953							
May 1	56,867	14,490	1,936	20,010	58,360	11,248	162,911
June 1	56,892	13,299	3,181	20,135	53,115	10,764	157,386
July 1	65,655	14,237	2,250	20,865	42,234	14,335	159,576
Aug. 1	69,771	15,742	2,907	22,290	46,770	14,247	171,727
Sept. 1	83,673	15,332	2,964	22,960	43,355	14,748	183,032
Oct. 1	81,377	16,921	3,549	24,717	42,613	15,877	185,054
Nov. 1	79,283	19,446	2,664	26,785	42,494	15,742	186,414
Dec. 1	73,348	19,916	2,868	24,303	50,996	16,498	187,929
1954							
Jan. 1	67,688	17,920	2,867	26,713	65,036	16,116	196,340
Feb. 1	63,032	12,790	3,406	28,050	77,805	14,691	199,774
Mar. 1	63,175	12,226	4,482	28,140	83,183	14,798	206,044
Apr. 1	68,520	13,377	2,631	28,841	88,942	11,985	214,296
May 1	67,270	14,624	2,715	28,257	88,464	11,977	213,307
June 1	64,103	10,906	1,348	27,105	97,420	11,882	212,764
July 1	61,669	12,241	3,660	26,046	94,828	9,798	208,242
Aug. 1	63,093	17,196	2,592	30,301	80,820	12,210	206,212
Sept. 1	62,851	18,688	2,903	29,792	72,150	12,279	198,663
Oct. 1	63,731	18,771	4,155	29,024	79,190	14,168	209,039
Nov. 1	59,660	17,095	3,265	28,373	80,650	14,846	203,889
Dec. 1	57,452	16,888	2,570	27,816	79,814	14,573	199,113

Receipts of Lead in Ore and Scrap

By U. S. Smelters (a)

(American Bureau of Metal Statistics) (In tons of 2,000 lbs.)

	Receipts of lead in ore			Receipts of lead in scrap etc. (b)	Total receipts in ore, & scrap
	United States	Foreign	Total		
1949 Total	420,122	93,061	513,183	58,447	571,630
1950 Total	430,072	76,160	506,232	43,666	549,898
1951 Total	376,851	75,515	452,366	36,510	488,876
1952					
October	33,770	6,925	40,695	3,707	44,402
November	30,537	14,009	44,546	2,663	47,209
December	32,769	10,317	43,086	3,690	46,776
Total	405,990	98,276	504,266	41,845	546,111
1953					
January	30,697	10,191	40,888	3,887	44,775
February	30,388	10,008	40,396	2,935	43,331
March	32,660	12,974	45,634	2,513	48,147
April	31,557	8,895	40,452	2,675	43,127
May	28,793	11,856	40,649	2,019	42,668
June	30,753	11,611	42,364	3,441	45,805
July	27,339	17,082	44,421	4,061	48,482
August	27,709	19,548	47,257	5,562	52,819
September	27,637	12,190	39,827	4,625	44,452
October	27,934	17,063	44,997	3,680	48,677
November	26,904	13,603	40,507	4,016	44,523
December	28,812	10,767	39,579	3,580	43,159
Total	351,183	155,788	506,971	42,994	549,965
1954					
January	26,202	13,309	39,511	3,162	42,673
February	29,342	10,888	40,230	3,373	43,603
March	31,520	12,006	43,526	3,550	47,076
April	28,508	13,173	41,681	4,524	46,205
May	25,762	11,141	36,903	4,484	41,387
June	28,266	11,750	40,016	3,300	43,316
July	26,975	14,984	41,959	3,742	45,701
August	28,835	12,820	41,655	4,060	45,715
September	25,244	20,807	46,051	4,450	50,501
October	26,884	12,561	39,455	5,134	44,579
November	29,107	8,622	37,729	5,628	43,357

(a) Receipts of lead in ore are computed on the basis of recoverable lead. Owing to the estimational factor in this, which is probably on the low side, and also to the possibility that some lead receipts may escape attention, these monthly totals probably underrun the actual production of pig lead. (b) Inclusive only of scrap smelted in connection with ore, plus some scrap received by primary refiners.

N. Y. Lead Price Changes

(Effective Date)

1949		Nov. 11	14.50
Aug. 2	14.—	Nov. 20	14.25
Aug. 18	15.125	Nov. 24	14.00
Sept. 26	14.75	Dec. 22	14.25
Oct. 3	14.25	Dec. 29	14.50
Oct. 7	13.75	Dec. 31	14.75
Oct. 14	13.0—	1953	
Nov. 10	12.75	Jan. 7	14.50
Nov. 16	12.50	Jan. 12	14.00
Nov. 21	12.00	Feb. 2	13.50
1950		Mar. 4	13.00
Mar. 9	11.00	Mar. 10	13.50
Mar. 14	10.50	Apr. 7	13.00
Apr. 20	10.75	Apr. 16	12.50
Apr. 26	11.00	Apr. 21	12.00
May 4	11.25	Apr. 29	12.50
May 10	11.50	May 18	12.75
May 11	12.00	May 19	13.00
June 23	11.50	May 26	13.15
1951		June 11	13.50
June 28	11.00	July 20	13.75
July 12	11.50	July 23	14.00
July 13	12.00	Sept. 16	13.50
Aug. 15	13.00	1954	
Aug. 21	14.00	Jan. 18	13.00
Sept. 1	15.00	Feb. 18	12.50
Sept. 8	16.00	Mar. 9	12.75
Oct. 2	**19.00	Mar. 10	13.00
Oct. 31	17.00	Mar. 26	13.25
1952		Mar. 29	13.50
Apr. 29	18.00	Apr. 1	13.75
May 2	17.00	Apr. 12	14.00
May 12	15.00	June 2	14.25
June 23	15.50	June 15	14.00
June 24	16.00	Aug. 25	14.25
Oct. 7	15.00	Sept. 7	14.50
Oct. 14	14.00	Sept. 15	14.75
Oct. 22	13.50	Oct. 4	14.75
Nov. 3	14.00	Oct. 4	15.00
Nov. 10	14.20	Oct. 5	15.00

*OPA Ceiling. †Returned to OPA Ceiling. **OPS Ceiling.

Antimonial Lead Stocks at Primary Refineries

(A. B. M. S.)

(In tons of 2,000 lbs.)

End of:	1951	1952	1953	1954
Jan.	7,293	7,430	11,572	14,961
Feb.	8,738	7,805	10,736	14,798
Mar.	7,894	9,169	11,484	11,985
Apr.	8,269	9,646	11,248	11,977
May	8,519	9,931	10,764	11,882
June	7,044	10,323	14,335	9,798
July	8,854	10,049	14,247	12,210
Aug.	7,215	11,253	14,748	12,279
Sept.	6,998	9,874	15,877	14,168
Oct.	6,543	10,967	15,742	14,846
Nov.	6,552	11,143	16,498	14,573
Dec.	6,821	12,155	16,116	.....

Antimonial Lead Production by Primary Refineries

(A. B. M. S.)

(In tons of 2,000 lbs.)

End of:	1951	1952	1953	1954
Jan.	6,356	5,767	2,937	3,768
Feb.	6,504	4,395	3,682	4,257
Mar.	5,617	3,800	5,353	4,475
Apr.	5,406	3,162	5,027	4,470
May	4,378	2,347	6,497	4,373
June	4,361	5,303	9,270	3,796
July	7,624	6,352	5,259	5,991
Aug.	2,716	6,492	4,668	6,455
Sept.	4,227	4,748	5,509	5,869
Oct.	4,862	5,867	5,100	5,532
Nov.	6,943	4,674	5,400	5,364
Dec.	6,317	3,947	3,060	....
Total	65,311	56,854	61,762	.....

U. S. Lead Consumption

(Bureau of Mines — In Short Tons)

Metal Products	1954 Jan.–Oct.	1954 Sept.	1954 Oct.
Ammunition	32,876	3,585	3,421
Bearing metals	22,141	2,351	2,190
Brass and bronze	15,589	1,572	1,564
Cable covering	105,360	10,512	10,795
Calking lead	41,043	4,685	4,402
Casting metals	7,264	759	795
Collapsible tubes	7,999	866	961
Foil	3,467	400	454
Pipes, traps and bends	21,422	2,451	2,318
Sheet lead	21,346	2,294	2,291
Solder	58,231	5,386	5,291
Storage batteries (antimonial lead)	142,705	14,419	14,684
(oxides)	136,105	14,785	13,657
Terne metal	1,069	70	124
Type metal	22,594	2,154	2,395
Total	639,211	66,289	65,342
Pigments:			
White lead	15,447	1,878	1,322
Red lead and litharge	63,748	6,890	5,370
Pigment colors	11,739	1,245	1,114
Other†	7,903	888	771
Total	98,837	10,901	8,577
Chemicals:			
Tetraethyl lead	136,431	14,177	12,471
Misc. chemicals	5,393	259	1,058
Total	141,824	14,436	13,529
Misc. Uses:			
Annealing	3,171	295	415
Galvanizing	1,442	135	191
Lead plating	587	64	55
Weights and ballasts	5,773	681	485
Total	10,973	1,175	1,146
Other Uses Unclassified	11,993	1,430	1,318
Total Reported	902,838	94,231	89,912
Estimated unreported consumption	10,000	1,000	1,000
Total	913,000	95,000	91,000
Daily average‡	3,003	3,167	2,935

† Includes lead content of leaded zinc oxide production.

‡ Based on number of days in month without adjustment for Sundays or holidays.

U. K. Lead Consumption

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 pounds)

	1952	1953	1954
Jan.	27,986	27,192	25,786
Feb.	25,096	24,552	25,837
Mar.	24,695	25,226	29,442
Apr.	22,359	24,869	25,820
May	24,093	24,350	28,637
June	21,903	23,612	28,574
July	23,746	23,455	25,968
Aug.	18,542	20,599	25,671
Sept.	24,902	27,426	30,631
Oct.	28,946	28,014	30,123
Nov.	26,996	27,358	.....
Dec.	24,056	26,582	.....
Total	293,320	303,753	.....

American Antimony

Monthly Average Prices in bulk, f.o.b. Laredo

(Cents per lb. in ton lots)

	1951	1952	1953	1954
Jan.	35.46	50.00	34.50	28.50
Feb.	42.00	50.00	34.50	28.50
Mar.	42.00	50.00	34.50	28.50
Apr.	42.00	48.85	34.50	28.50
May	42.00	42.077	34.50	28.50
June	42.00	39.00	34.50	28.50
July	42.00	39.00	34.50	28.50
Aug.	42.00	39.00	34.50	28.50
Sept.	42.00	39.00	34.50	28.50
Oct.	42.00	39.00	34.50	28.50
Nov.	44,738	35.62	33.68	28.50
Dec.	50.00	34.50	28.50	28.50
Av.	42.354	42.17	33.93	28.50

Lead Imports and Exports by Principal Countries

(A.B.M.S.)

Reported in pigs, bars, etc.; metric tons except where otherwise noted.

IMPORTS

	1954 Aug.	1954 Sept.	1954 Oct.
U. S.† (s.t.)	24,644	29,047	22,503
Canada (s.t.)	...	22	...
Belgium	2,078	1,973	...
Denmark	792	706	920
France	4,174	5,654	3,645
Germany‡	3,485	6,100	...
Italy*	1,134	788	...
Netherlands	4,138	4,212	...
Sweden	1,318	1,004	...
Switzerland	2,235	1,770	798
U. K. (l.t.)	11,810	21,045	9,845
India (l.t.)	400	721	...

EXPORTS

U. S.† (s.t.)	8	29	87
Canada (s.t.)	8,646	10,045	...
Belgium	4,764	4,045	...
Denmark	142	686	526
France	498	1,080	328
Germany‡	2,403	3,023	...
Netherlands	574	810	...
N. Rhodesia (l.t.)	1,060	1,041	...

‡ Includes scrap.
* Includes lead alloys.
† Refined.

French Lead Imports

(A.B.M.S.)

(In metric tons)

	1954 Jan.–Nov.	1954 Oct.	1954 Nov.
Ore (gross weight)	79,548	10,417	3,008
Greece	693	...	...
Italy	300	300	...
Algeria	1,203	...	3
Fr. Morocco	69,983	9,111	3,005
Fr. Eq. Africa	7,369	1,006	...
Pig lead:			
Argentiferous	610	...	...
Morocco	600	...	...
Germany, W.	10	...	...
Non-argentiferous	44,689	3,645	5,586
Mexico	101	...	...
Belgium	662	102	187
Germany, W.	3,895	231	300
Greece	200	...	...
Norway	270	...	...
Spain	1,500	...	...
Yugoslavia	259	9	150
Algeria	216	132	15
Fr. Morocco	14,788	1,607	1,961
Tunisia	22,645	1,564	2,973
U. of S. Africa	100	...	...
Australia	51	...	...
Other countries	2	...	...
Antimonial lead	676	...	...

Consumers' Lead Stocks, Receipts and Consumption

(Bureau of Mines — In Short Tons)

	Stocks at plants on Sept. 30	Received during Oct.	Consumed during Oct.	Stocks at plants on Oct. 31
Refined soft lead	78,044	62,172	58,069	82,154
Antimonial lead	19,141	20,190	22,141	17,133
Unmelted white scrap	3,000	1,741	1,850	2,891
Percentage metals	8,570	3,357	2,648	9,279
Copper-base scrap	1,988	1,568	1,612	1,944
Drosses, residues, etc.	8,626	2,728	2,833	8,521
Total	119,369	91,756	†89,153	121,972

† Excludes 759 tons of lead contained in leaded zinc oxide production.

Consumption of Lead by Class of Product

(Bureau of Mines — In Short Tons)

OCTOBER

	Soft and Antimonial Lead	Scrap, Percentage Metals, Drosses, Etc.	Total
Metal Products	56,515	8,827	65,342
Pigments	7,783	35	7,818
Chemicals	13,529	..	13,529
Miscellaneous	1,142	4	1,146
Unclassified	1,241	77	1,318
Total	80,210	8,943	†89,153

† Excludes 759 tons of lead contained in leaded zinc oxide production.

U. K. Lead Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1954 Jan.–Nov.	1954 Oct.	1954 Nov.
(Gross Weight) Lead and lead alloys	176,279	9,845	20,534
Australia	110,533	5,015	13,661
Canada	34,843	3,480	4,500
Belgium	47	....	...
Yugoslavia	5,691	...	750
United States	11,079	300	...
Peru	9,968	500	500
Other countries	4,118	550	1,123

Domestic Zinc Statistics

American Zinc Institute

Commencing with January, 1948, all regularly operating U. S. primary and secondary smelters are included in this report. Production from foreign ores also is included.
(Tons of 2,000 lbs.)

	Stock Beginning	Production	Shipments: Domestic	Shipments: Export & Drawback	Shipments: Gov't Acc't	Shipments: Total	Stock at End	Unfilled Orders at End	Daily Avg. Prod.
1947 Tl.	175,500	848,027	698,281	117,305	140,230	955,816	68,011	59,705	2,323
1947 Mo. Av.		70,669	58,190	9,775	11,686	79,651			
1948 Tl.	68,647	850,015	770,396	69,910	57,598	897,904	20,848	51,318	2,323
1948 Mo. Avg.		70,842	64,200	5,826	4,800	74,826			
1949 Tl.	20,848	870,113	648,285	56,929	91,526	796,740	94,221	42,625	2,384
1949 Mo. Avg.		72,509	54,024	4,744	7,627	66,395			
1950 Tl.	94,221	910,354	849,246	18,189	128,256	995,691	8,884	74,795	2,494
1950 Mo. Avg.		75,863	70,770	1,516	10,688	82,974			
1951 Tl.	8,884	931,833	836,800	32,067	39,949	918,816	21,901	50,509	2,553
1951 Mo. Avg.		77,653	69,733	3,506	3,329	76,568			
1952									
Sept.	**96,651**	**76,019**	**69,343**	**3,654**	**5,132**	**78,129**	**94,541**	**42,791**	**2,534**
Oct.	**94,541**	**80,588**	**71,659**	**3,827**	**4,301**	**79,787**	**95,342**	**37,533**	**2,600**
Nov.	**95,342**	**75,563**	**81,439**	**4,625**	**4,692**	**90,756**	**83,149**	**32,255**	**2,519**
Dec.	**83,149**	**81,363**	**71,175**	**2,615**	**3,562**	**77,352**	**86,160**	**45,264**	**2,627**
Total		**961,430**	**803,343**	**56,202**	**86,626**	**896,171**			
Monthly Avg.		**80,119**	**66,945**	**4,683**	**3,052**	**74,681**			**2,627**
1953									
Jan.	**87,160**	**81,994**	**77,573**	**2,205**	**901**	**80,679**	**88,475**	**39,782**	**2,645**
Feb.	**88,475**	**76,899**	**67,729**	**1,997**	**1,984**	**71,710**	**93,664**	**37,172**	**2,746**
Mar.	**93,664**	**83,485**	**72,388**	**1,315**	**3,582**	**77,285**	**99,864**	**54,524**	**2,693**
Apr.	**99,864**	**80,459**	**78,211**	**215**	**7,617**	**86,043**	**94,280**	**38,722**	**2,681**
May	**94,280**	**82,422**	**75,648**	**259**	**8,343**	**84,250**	**92,452**	**43,271**	**2,659**
June	**92,452**	**81,617**	**72,612**	**36**	**4,136**	**76,784**	**97,285**	**44,307**	**2,721**
July	**97,285**	**80,825**	**69,498**	**94**	**4,612**	**74,204**	**103,906**	**32,327**	**2,607**
Aug.	**103,906**	**83,241**	**65,450**	**428**	**3,372**	**69,250**	**117,897**	**32,988**	**2,685**
Sept.	**117,897**	**81,211**	**55,167**	**165**	**2,215**	**57,547**	**141,561**	**27,323**	**2,704**
Oct.	**141,561**	**84,031**	**65,470**	**482**	**1,223**	**67,175**	**158,417**	**25,950**	**2,711**
Nov.	**158,417**	**75,891**	**63,617**	**2,848**	**2,220**	**68,685**	**165,623**	**29,437**	**2,530**
Dec.	**165,623**	**79,116**	**55,487**	**6,282**	**2,127**	**63,896**	**180,843**	**35,466**	**2,552**
Total	**.....**	**971,191**	**818,850**	**16,326**	**42,332**	**877,508**	**.....**	**.....**	**2,661**
Monthly Avg.		**80,933**	**68,238**	**1,361**	**3,528**	**73,126**			**2,661**
1954									
Jan.	**180,843**	**78,561**	**54,865**	**3,681**	**2,146**	**60,692**	**198,712**	**26,378**	**2,534**
Feb.	**198,712**	**68,020**	**57,781**	**7,179**	**1,778**	**66,738**	**199,994**	**28,943**	**2,429**
Mar.	**199,994**	**71,186**	**66,929**	**1,703**	**1,448**	**70,080**	**201,100**	**31,702**	**2,296**
Apr.	**201,100**	**70,255**	**67,512**	**977**	**2,489**	**70,616**	**200,740**	**31,702**	**2,342**
May	**200,740**	**73,645**	**61,859**	**670**	**2,037**	**64,566**	**209,828**	**38,624**	**2,376**
June	209,828	71,466	72,257	2,297	5,685	80,239	201,055	33,100	2,385
July	201,124	70,749	59,157	1,475	13,214	73,846	198,027	38,899	2,282
Aug.	198,027	71,810	58,188	1,525	16,871	76,584	193,253	41,059	2,316
Sept.	193,253	60,137	64,548	1,072	12,265	77,885	175,505	48,818	2,004
Oct.	175,505	67,047	78,867	1,468	10,080	90,415	152,137	51,559	2,163
Nov.	152,137	80,119	77,074	2,477	18,066	97,617	134,639	44,042	2,671
Dec.	134,639	85,166	75,105	3,405	17,218	95,728	124,077	45,862	2,747

U. S. Consumption of Slab Zinc

Bureau of Mines
By Industries (Short Tons)

	Galvanizers	Zn-base alloy	Brass products	Rolled zinc	Zinc oxide & other	Total
1947 Total	359,583	215,002	108,591	71,151	26,328	780,675
1948 Total	365,979	232,482	107,422	76,672	24,247	806,802
1949 Total	348,544	197,387	84,257	55,100	17,643	702,931
1950 Total	434,094	281,385	136,451	67,779	27,656	947,365
1951 Total	386,373	266,442	141,456	64,000	28,738	887,009
1952						
September	**37,394**	**21,178**	**13,682**	**4,478**	**2,097**	**78,829**
October	**40,466**	**23,286**	**17,258**	**4,938**	**2,937**	**88,885**
November	**36,333**	**21,493**	**14,776**	**4,372**	**3,087**	**80,061**
December	36,717	25,146	16,212	4,699	3,217	85,991
Total	375,563	236,022	155,311	51,508	30,885	849,289
1953						
January	36,974	27,465	16,739	4,593	3,332	89,103
February	34,882	27,092	14,880	3,914	3,330	84,098
March	37,375	30,651	17,494	5,360	3,572	94,452
April	36,181	29,790	17,162	5,109	3,302	91,544
May	34,790	27,398	17,748	5,082	3,408	88,426
June	32,758	27,099	17,564	5,309	3,129	85,859
July	30,535	22,832	12,361	4,053	3,250	73,031
August	33,074	22,740	15,739	4,440	3,107	79,100
September	33,465	21,745	13,374	4,329	3,221	76,134
October	34,354	22,854	13,709	4,077	3,077	78,071
November	29,989	21,408	9,779	3,887	2,482	67,545
December	28,785	24,272	10,758	3,631	2,827	70,273
Total	403,162	305,346	177,301	53,784	38,037	977,636
1954						
January	26,731	21,804	10,266	4,014	3,029	65,844
February	27,243	22,184	8,486	4,035	2,230	64,178
March	31,298	26,549	9,026	4,246	2,520	73,639
April	32,970	24,176	8,181	3,933	2,395	71,655
May	32,935	22,081	8,450	3,848	3,028	70,342
June	34,827	23,534	8,860	4,214	2,880	74,665
July	33,897	17,214	6,135	3,006	2,712	63,314
August	38,225	19,891	8,349	4,030	2,684	73,529
September	37,591	20,980	8,505	3,153	3,037	73,616
October	36,407	26,051	9,501	4,181	3,055	79,545

Prime Western Zinc Prices

(East St. Louis)

Average Prices, Cents Per Pound

	1951	1952	1953	1954
Jan.	17.50	19.50	12.596	9.76
Feb.	17.50	19.50	11.48	9.375
Mar.	17.50	19.50	11.024	9.66
Apr.	17.50	19.50	11.00	10.25
May	17.50	19.50	11.00	10.29
June	17.50	15.74	11.00	10.96
July	17.50	15.00	11.00	11.00
Aug.	17.50	14.077	11.00	11.00
Sept.	17.50	14.01	10.18	11.44
Oct.	19.426	13.306	10.00	11.50
Nov.	19.50	12.50	10.00	11.50
Dec.	19.50	12.50	10.00	11.50
Av.	17.994	16.22	10.857	10.69

High Grade Zinc Prices

(Delivered)
N. Y. Monthly Averages
(Cents per pound)

	1951	1952	1953	1954
Jan.	18.85	20.85	13.946	11.11
Feb.	18.85	20.85	12.83	10.725
Mar.	18.85	20.85	12.379	11.01
Apr.	18.85	20.85	12.35	11.60
May	18.85	20.85	12.35	11.64
June	18.85	17.09	12.35	12.31
July	18.85	16.35	12.47*	12.35
Aug.	18.85	15.427	12.60	12.35
Sept.	18.85	15.36	11.53	12.79
Oct.	20.776	14.656	11.35	12.85
Nov.	20.85	13.85	11.35	12.85
Dec.	20.85	13.85	11.35	12.85
Av.	19.344	17.57	12.207	12.04

*East of Continental Divide.

U. K. Zinc Consumption

(British Bureau of Non-Ferrous Metal Statistics)

	1952	1953	1954
Jan.	26,206	21,179	25,615
Feb.	24,454	20,311	25,286
Mar.	24,697	21,662	29,001
Apr	22,072	20,421	26,084
May	21,938	20,105	27,551
June	19,637	21,141	29,665
July	18,807	19,226	23,012
Aug.	16,511	17,341	22,102
Sept.	21,192	26,465	30.413
Oct.	22,264	26,865	28,543
Nov.	19,570	26,982	.....
Dec.	18,256	26,689	.....
Total	255,657	269,170	.....

Mine Production of Zinc in United States

(U. S. Bureau of Mines)

(In short tons)

	Eastern States	Central States	Western States	Total U.S.*
1949				
Total	156,334	78,284	349,264	583,882
1950				
Total	170,726	82,300	365,175	618,207
1951				
Total	188,525	92,457	398,128	679,111
1952				
Total	185,939	94,410	385,652	666,001
1953				
May	14,864	6,851	26,075	47,790
June	15,628	5,015	25,722	46,365
July	15,640	2,771	23,894	42,305
Aug.	14,288	3,104	23,573	40,965
Sept.	14,169	2,841	22,178	39,188
Oct.	14,741	2,821	21,209	38,771
Nov.	14,524	1,990	19,946	36,460
Dec.	14,709	1,646	21,390	37,745
Total	183,612	57,300	293,818	534,730
1954				
Jan.	13,772	4,575	20,505	38,852
Feb.	14,379	4,733	19,010	38,122
Mar.	15,242	5,462	20,548	41,252
Apr.	14,188	4,863	20,894	39,945
May	13,746	5,210	21,075	40,031
June	14,563	5,410	20,463	40,436
July	13,866	5,309	19,501	38,676
Aug.	14,867	5,595	18,283	38,745
Sept.	14,452	5,156	14,928	34,536
Oct.	14,568	5,770	16,105	36,443

* Includes Alaskan output in some months

Mine Production of Lead in United States

(U. S. Bureau of Mines)

(In short tons)

	Eastern States	Central States	Western States	Total U.S.*
1949				
Ttl.	8,719	156,400	238,843	404,032
1950				
Ttl.	8,470	163,489	257,766	429,875
1951				
Ttl.	7,426	152,258	230,723	390,428
1952				
Ttl.	11,252	150,302	228,607	390,161
1953				
May	911	12,268	15,866	29,045
June	793	11,700	15,856	28,349
July	764	11,277	14,323	26,364
Aug.	596	10,565	14,922	26,083
Sept.	616	10,595	15,263	26,474
Oct.	802	11,065	14,785	26,652
Nov.	813	10,022	13,836	24,671
Dec.	786	11,592	14,729	27,107
Ttl.	9,970	136,650	188,776	335,412
1954				
Jan.	731	10,937	13,027	24,695
Feb.	684	11,709	15,050	27,443
Mar.	785	12,835	15,889	29,539
Apr.	752	11,786	14,306	26,844
May	738	10,970	13,687	25,395
June	782	11,446	13,981	26,209
July	681	11,253	13,357	25,291
Aug.	850	11,655	14,606	27,111
Sept.	786	11,301	12,907	24,994
Oct.	751	11,301	13,152	25,503

* Includes Alaskan output in some months.

Mine Production of Gold in United States

(U. S. Bureau of Mines)

(In fine ounces)

	Eastern States	Western States	Alaska*	Total
1950				
Ttl.	2,061	2,108,756	282,866	2,391,683
1951				
Ttl.	2,511	1,749,580	205,452	1,957,543
1952				
Ttl.	1,948	1,650,660	233,428	1,886,036
1953				
Sept.	129	147,256	48,544	195,929
Oct.	120	147,753	41,224	189,097
Nov.	144	139,473	30,591	170,208
Dec.	114	137,129	20,000	157,243
Ttl	1,529	1,689,668	273,479	1,964,676
1954				
Jan.	105	137,310	1,585	139,000
Feb.	126	130,410	1,212	131,748
Mar.	158	141,266	7,893	149,317
Apr.	69	134,616	3,538	138,223
May	132	126,844	13,939	140,915
June	147	140,243	38,790	179,180
July	155	130,447	31,235	161,837
Aug.	151	119,348	42,208	161,707
Sept.	172	129,728	43,104	173,004
Oct.	160	128,361	36,476	164,997

* Alaska totals based on mint and smelter receipts.

Mine Production of Recoverable Silver in United States

(U. S. Bureau of Mines)

(In Fine Ounces)

	Eastern States	Missouri	Western States	Alaska*	Total
1952 Total	158,004	391,707	38,515,679	31,825	**39,100,923
1953					
September	15,987	420	3,042,472	6,441	3,065,320
October	12,546	500	3,124,441	5,531	3,143,018
November	18,126	400	2,931,892	4,236	2,954,654
December	10,112	354	3,021,387	3,000	3,034,853
Total	158,707	223,500	36,354,685	39,111	36,776,003
1954					
January	11,662	25,220	2,906,976	256	2,944,074
February	9,333	20,327	2,981,326	178	3,011,603
March	15,643	21,825	3,314,479	1.078	3,353,025
April	11,103	17,795	3,093,436	547	3,124,881
May	11,591	17,997	3,270,529	1,970	3,302,087
June	10,667	18,533	3,197,890	5,275	3,232,365
July	11,211	18,702	2,915,851	4,219	2,949,983
August	10,739	19,145	2,923,951	5,740	2,958,875
September	10,749	18,088	2,787,753	6,036	2,822,626
October	12,806	17,820	2,643,937	5,162	2,679,725

*Alaska totals based on mint and smelter receipts.

**Includes a total of 3,708 oz. from Illinois.

Production of Primary Aluminum in the U. S.*

(U. S. Bureau of Mines)

(In short tons)

	1947	1948	1949	1950	1951	1952	1953	1954
Jan.	50,045	48,767	54,356	50,023	67,954	76,934	89,895	116,247
Feb.	47,002	45,699	49,749	54,493	62,740	72,374	92,649	110,483
Mar.	43,032	51,874	54,852	58,747	70,022	77,069	104,460	122,339
Apr.	51,007	53,277	54,076	58,024	67,701	76,880	102,071	120,434
May	51,116	55,450	56,909	51,929	67,720	80,803	105,464	125,138
June	46,259	48,557	54,184	60,400	67,454	77,476	104,152	120,758
July	47,998	52,937	55,777	63,518	72,698	78,368	109,285	126,161
Aug.	47,054	54,953	52,001	63,006	73,816	85,175	110,545	125,296
Sept.	43,228	53,255	49,742	54,449	69,429	76,882	109,333	120,332
Oct.	43,959	54,526	45,790	62,915	72,647	77,312	108,219	125,089
Nov.	43,461	50,174	35,865	62,276	72,246	74,639	105,636	.....
Dec.	47,589	53,474	34,161	65,897	72,454	83,419	110,291	.....
Total	571,750	623,456	603,462	718,622	836,881	937,330	1,252,000	.....

*Based on producers' reports to War Production Board to July, 1946. Thereafter to Bureau of Mines. The monthly figures are preliminary in nature and will not add to the totals derived from the Bureau's annual industry canvass.

U. S. Silver Production*

(A.B.M.S.)

(In thousands of ounces; commercial bars, 0.999 fine, and other refined forms)

	Dom.†	For.	Total
1949 Total	34,559	28,226	62,785
1950 Total	42,068	37,656	79,724
1951 Total	39,967	33,837	73,804
1952 Total	40,245	36,653	76,898
1953			
June	1,909	2,536	4,445
July	2,525	2,533	5,058
August	2,652	4,334	6,986
September	2,301	2,613	4,914
October	3,558	3,431	6,989
November	2,551	4,707	7,218
December	3,751	1,811	5,562
Total	34,697	37,764	72,461
1954			
January	3,372	2,674	6,046
February	3,163	3,729	6,957
March	3,775	3,729	7,504
April	3,643	3,708	7,351
May	3,229	3,335	6,564
June	3,609	3,212	6,821
July	1,997	2,940	4,937
August	2,779	2,795	5,574
September	2,840	3,797	6,637
October	3,117	3,126	6,243

* The separation between silver of foreign and domestic origin on the basis of refined bars and other refined forms is only approximate.

† Includes purchases of crude silver by the U. S. Mint.

Average Silver Prices

(Cents per fine ounce)

	1951	1952	1953	1954
Jan.	88.71	88.00	84.44	85.25
Feb.	90.16	88.00	85.25	85.25
Mar.	90.16	88 00	85.25	85.25
Apr.	90.16	88.00	85.25	85.25
May	90.16	85.405	85.25	85.25
June	88.553	82.75	85.25	85.25
July	90.16	82.886	85.25	85.25
Aug.	90.16	83.25	85.25	85.25
Sept.	90.16	83.25	85.25	85.25
Oct.	88.14	83.25	85.25	85.25
Nov.	88.00	83.25	85.25	85.25
Dec.	88.00	83.25	85.25	85.25
Av.	89.377	84.94	85.183	85.25

Note — The averages are based on the price of refined bullion imported on or after August 31, 1942.

U. S. Copper Exports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	1954		
	Aug.	Sept.	Oct.
Ore, conc., matte and other unrefined (cont.)	24	26	53
Refined ingots, bars, etc.†	23,245	13,464	20,073
Canada	64	48	176
Argentina	...	467	468
Brazil	3,502	2,818	1,491
Austria	61	105	50
Belgium	...	...	280
Denmark	...	17	...
France	6,973	1,804	3,928
Germany (W.)	2,640	501	2,826
Italy	1,078	1,343	1,404
Netherlands	1,875	2,233	3,354
Norway	...	308	392
Sweden	...	783	1,456
Switzerland	493	224	619
U. Kingdom	2,820	2,434	2,207
Formosa	...	7	...
India	84	280	560
Japan	235	67	24
Australia	3,360	...	560
Other countries	60	25	104
Algeria	...	...	174
Total Exports:			
Crude & refined	23,269	13,490	20,126
Pipes and tubes	116	149	114
Plates and sheets	31	41	23
Rods	63	4	2
Wire, bare	132	256	355
Building wire and cable‡	223	291	395
Weatherproof wire‡	12	99	69
Insulated copper wire, n.e.s.‡	679	397	644

† Includes exports of refined copper resulting from scrap that was reprocessed on toll for account of the shipper.

‡ Gross weight; n.e.s. — not elsewhere specified.

U. S. Zinc Exports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	1954		
	Aug.	Sept.	Oct.
Slabs, blocks, etc.	1,230	1,021	1,983
Mexico	...	80	97
Brazil	143	...	...
Chile	...	77	...
Belgium	...	...	840
Germany (W.)	1,008	56	336
Switzerland	...	...	112
U. Kingdom	...	616	560
Korea	69	190	...
Other countries	10	2	38
Total Exports:			
Ore, conc., slab, blocks	1,230	1,021	1,983
Scrap: ashes, dross and skimmings	1,986	2,149	1,494
Rolled in sheets, plates & strips†	224	218	142
Alloys ex brass and bronze	34	31	2
Die castings	49	55	46

† Includes photoengraving sheets and plates.

U. S. Copper Imports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	1954		
	Aug.	Sept.	Oct.
Ore, matte & reg. (cont.)	10,618	10,513	9,516
Canada	3,010	3,355	1,821
Mexico	1,168	1,263	1,246
Cuba	1,614	1,828	1,632
Bolivia	576	479	52
Chile	535	920	...
Peru	321	1,689	1,167
Philippines	2,328	5	2,378
U. of S. Africa	964	687	794
Australia	...	258	390
Other countries	102	29	36
Blister copper (content)	27,520	23,314	12,370
Mexico	3,992	2,533	2,085
Chile	14,650	10,665	6,228
Belg. Congo	...	546	551
N. Rhodesia	7,784	5,004	3,506
Turkey	1,094	...	...
Australia	...	4,566	...
Refined cathodes and shapes	16,413	19,648	8,095
Canada	6,620	7,764	4,035
Mexico	826	...	546
Chile	6,412	9,328	1,404
Peru	1,305	1,398	563
Norway	447	300	300
Yugoslavia	303	358	248
Belg. Congo	500	...	999
N. Rhodesia	...	500	...
Total Imports:			
Crude & refined	54,551	53,475	29,981
In rolls, sheets or rods	570	724	813
Old and scrap (content)	611	439	415
Composition metal (content)	50	...	...
Brass scrap and old (cu. cont.)	228	490	410

U. S. Lead Exports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	1954		
	Aug.	Sept.	Oct.
Pigs and bars	8	29	87
Cuba	...	2	2
Brazil	...	...	1
Chile	...	3	...
Colombia	...	8	...
Venezuela	...	6	...
Philippines	...	...	22
Costa Rica	3	...	...
Other countries	5	10	62
Total Exports:			
Ore, base bullion, refined	8	29	87
Sheets and pipes	11	65	10
Typemetal	51	48	65
Antimonial	37	...	12
Scrap	73	513	90

Comparative Metal Prices

	1939 Av.	OPA Nov. 1946	1955 Jan. 18
Copper, Domestic (Electro, Del. Valley)	11.20	14.375	30.00
Lead (N. Y.)	5.05	8.25	15.00
P. W. Zinc (E. St. Louis, f. o. b.)	5.05	5.05	11.50
New York, del.	...	....	12.00
Tin, Spot—Straits, N. Y.	....	....	86.75
Aluminum Ingot 99%+	20.00	15.00	23.20
Antimony (R.M.M. brand, f. o. b. Laredo)	12.36	14.50	28.50

U. S. Lead Imports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	1954		
	Aug.	Sept.	Oct.
Ore, matte, etc. (content)	14,016	18,297	16,034
Canada	3,128	3,100	3,081
Mexico	252	70	167
Guatemala	121	155	218
Honduras	474	212	35
Bolivia	1,237	774	1,233
Chile	...	700	90
Peru	3,667	4,779	4,437
U. of S. Africa	5,106	3,320	3,541
Philippines	31	149	211
Australia	...	4,873	2,988
Other countries	...	165	33
Pigs and bars	24,644	29,047	22,503
Canada	5,005	3,076	4,148
Mexico	10,738	5,680	5,227
Peru	2,193	2,638	1,550
Denmark	121	248	420
Netherlands	...	112	...
Spain	...	1,488	2,438
U. Kingdom	5	18	...
Yugoslavia	3,175	3,417	3,306
Fr. Morocco	...	662	...
Australia	3,407	11,708	5,414
Total Imports:			
Ore, base bullion, refined	38,660	47,344	38,537
Lead scrap, dross, etc. (cont.)	420	819	854
Antimonial lead & typemetal	71	209	215
Lead content thereof	38	177	156

U. S. Zinc Imports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	1954		
	Aug.	Sept.	Oct.
Zinc ore (content)	44,721	38,563	37,612
Canada	17,741	11,646	10,165
Mexico	14,110	16,945	17,026
Guatemala	280	252	686
Honduras	134	108	26
Bolivia	97	77	68
Colombia	...	14	..
Chile	208	19	915
Peru	11,612	8,778	7,860
U. of S. Africa	530	449	404
Australia	...	247	419
Philippines	9	28	43
Zinc blocks, pigs, etc.	11,410	10,914	11,467
Canada	5,311	4,671	5,582
Mexico	2,180	1,684	1,842
Peru	687	142	325
Belgium	1,532	1,157	1,571
Italy	281	83	303
Netherlands	55	441	...
Belg. Congo	524	2,624	1,284
Australia	840	...	560
Other countries	...	112	...
Total Imports:			
Zinc ore, blocks, pigs	56,131	49,477	49,079
Dross and skim	23	...	...
Old and worn out	...	34	22

World Production of Copper

(American Bureau of Metal Statistics)

(In Tons of 2,000 Pounds)

	United States (a)	Canada (b)	Mexico (crude) (c)	Chile (d)	Peru (d)	Fed. Rep. of Germany (e)	Norway (f)	United Kingdom (g-h)	Yugo-slavia (c)	India (f-h)	Japan (e)	Turkey (f)	Aus-tralia (c)	Northern Rho-desia (c)	Union of South Africa (d)
1951															
Total	964,589	269,971	60,511	396,937	25,495	234,647	.....	.....	.....	....	100,254	....	16,984	349,667	36,104
1952															
Total	961,886	258,868	60,874	422,493	22,640	206,747	11,206	163,968	36,176	7,009	104,060	2,546	21,119	336,883	37,459
1953															
May	84,091	22,299	4,624	41,538	2,284	20,189	....	....	2,866	...	7,906	...	2,929	25,280	2,142
June	75,838	22,110	5,931	35,744	2,223	19,962	....	6,625	3,354	455	7,797	...	4,164	35,790	2,690
July	79,938	22,801	5,621	29,502	2,359	20,914	....	4,679	3,081	710	7,444	...	3,711	34,775	3,980
Aug.	79,376	21,437	5,352	29,652	2,513	18,836	....	8,164	3,158	585	8,681	2,343	3,450	32,207	3,309
Sept.	78,952	19,601	4,974	29,417	2,121	19,654	....	6,412	3,340	702	9,600	2,536	3,920	28,579	3,606
Oct.	83,433	19,229	5,888	20,340	2,140	20,865	....	11,172	3,336	769	9,849	...	3,479	35,382	3,166
Nov.	79,934	17,315	5,486	9,669	2,268	20,466	....	13,791	2,612	759	9,581	1,618	3,240	34,262	2,572
Dec.	78,500	17,901	5,075	29,435	2,303	21,429	....	11,408	2,209	717	10,346	2,338	3,784	31,151	4,041
Total	957,318	253,652	63,380	371,742	25,803	233,330	13,306	108,604	34,381	5,709	100,381	25,641	37,080	382,884	38,341
1954															
Jan.	76,912	17,791	5,543	29,759	1,910	20,687	1,111	18,079	2,833	357	10,211	...	1,758	29,856	3,816
Feb.	68,034	18,370	5,146	28,673	1,465	19,359	939	11,404	1,330	718	10,052	...	2,483	25,947	3,513
Mar.	73,429	26,679	4,646	21,441	1,599	21,264	1,227	10,926	2,249	769	11,240	...	4,412	33,021	2,544
Apr.	70,977	27,940	4,380	21,116	2,412	22,494	1,176	13,289	3,135	728	11,074	...	4,446	36,250	4,863
May	71,571	27,664	4,057	22,782	2,620	21,104	1,128	11,670	3,094	711	11,030	...	5,011	32,154	2,631
June	74,113	26,077	5,650	28,590	2,400	20,016	1,231	11,920	3,092	647	8,654	...	4,492	31,982	4,158
July	66,070	26,562	5,650	34,670	2,400	23,600	1,109	11,759	3,097	720	10,519	...	3,276	32,077	4,147
Aug.	52,825	26,902	5,394	30,123	2,655	21,995	1,268	11,758	3,318	700	9,384	...	4,297	32,709	4,146
Sept.	61,827	23,671	5,133	18,382	2,579	21,932	1,312	16,166	2,956	700	8,360	...	3,588	34,512	....
Oct.	68,479	.....	4,751	.....	2,589	22,173	....	10,396	2,790	756	9,008	...	3,469	33,466	....
Nov.	91,094	.....	5,418	.....	2,407	.....	....	.....	....	...	8,322	...	....	.....	....

(a) Reported by Copper Institute. Crude, "recoverable contents of mine production or smelter production or shipments, and custom intake". Does not include intake of scrap nor of imported ore except that received from Cuba and Philippines. (b) Blister copper plus recoverable copper in concentrates, matte, ect., exported. (c) Crude copper, i. e., copper content of blister or converter copper as originally produced in the several countries, although some of it may be refined at home; e. g., in Rhodesia. (d) Blister and/or refined. (e) Refined. There are quantities of scrap included in the electrolytic production in addition to that reported, tonnage of which is not obtainable. (f) Smelter production. (g) Refinery production from imported blister only. (h) British Bureau of Non-Ferrous Metal Statistics. * Refined.

World Production of Refined Lead

(American Bureau of Metal Statistics)

(In Tons of 2,000 Pounds)

	United States	Canada	Mexico	Peru	Belgium	France	Fed. Rep. of Germany	Italy	Spain	Yugo-slavia	Japan	Aus-tralia (a)	French Moroco	Tunisia	Rho-desia	Total
1951																
Total	486,874	162,712	219,352	48,824	77,873	53,831	170,760	39,683	45,460	.....	18,516	217,301	20,287	25,476	15,646	1,602,601
1952																
Total	532,778	183,389	248,551	53,536	83,139	59,607	152,751	38,504	46,060	74,053	20,382	217,293	31,224	28,264	14,112	1,783,643
1953																
May	43,187	16,343	27,932	5,449	6,907	4,854	13,698	4,758	4,620	6,602	2,080	25,190	2,401	1,890	1,310	167,196
June	36,880	14,888	15,265	6,053	6,208	4,247	14,217	2,965	5,248	6,594	1,955	21,992	1,935	2,728	1,036	142,211
July	40,210	9,660	18,002	5,367	6,206	3,352	13,588	2,259	3,708	6,068	2,103	22,958	2,703	2,459	1,120	139,763
Aug.	38,022	11,615	19,801	5,428	6,164	3,866	12,265	2,359	4,266	6,281	2,155	22,312	2,169	2,889	1,120	132,262
Sept.	42,154	12,382	18,394	5,865	6,424	6,529	12,880	3,197	4,015	5,872	2,353	24,817	2,340	2,501	1,120	142,631
Oct.	44,741	12,646	19,907	5,935	6,457	6,208	14,610	5,072	5,635	6,984	2,071	23,754	2,639	2,666	1,120	160,445
Nov.	52,562	14,876	17,847	5,302	6,648	5,687	15,165	4,608	3,702	5,090	1,842	20,095	2,686	1,963	1,120	159,143
Dec.	48,687	14,913	19,262	5,634	6,900	6,584	15,674	3,635	4,406	6,581	2,467	26,464	2,590	2,643	1,120	167,560
Total	533,883	166,356	225,075	66,520	84,162	60,887	164,077	40,786	53,799	78,038	25,513	241,419	29,970	30,397	12,891	1,813,773
1954																
Jan.	48,518	13,089	17,374	5,292	6,719	6,501	15,205	2,221	4,019	5,771	2,820	25,901	2,944	2,716	1,120	160,206
Feb.	42,046	12,326	16,052	3,620	6,792	6,078	12,996	3,368	4,888	2,125	2,874	19,085	3,309	2,468	1,008	139,053
Mar.	50,808	14,243	22,638	5,303	6,416	5,767	14,445	3,963	6,033	5,832	3,276	17,244	3,297	2,917	1,400	163,582
Apr.	46,730	14,875	20,819	5,609	6,063	7,666	13,147	3,255	4,637	6,917	2,926	17,796	2,986	1,205	1,848	156,479
May	49,139	15,107	20,723	4,847	6,101	6,953	13,030	3,668	5,729	6,762	2,900	23,052	2,562	2,069	1,120	163,762
June	42,317	14,377	17,651	6,332	6,283	6,256	14,642	3,601	4,318	5,816	3,068	28,049	1,788	3,837	1,568	152,273
July	35,716	9,078	19,765	5,228	6,431	6,414	13,295	3,754	6,317	6,151	3,580	22,192	2,377	1,569	1,456	149,180
Aug.	44,089	11,106	17,668	5,414	6,534	1,402	10,826	1,516	6,046	7,061	3,441	22,067	2,133	2,651	2,240	144,319
Sept.	47,762	14,590	17,182	5,093	6,657	4,422	12,097	3,029	5,667	6,953	3,017	.....	3,034	3,336	1,680	156,587
Oct.	51,276	.....	19,714	5,718	7,081	6,709	15,067	3,904	4,719	5,512	3,105	.....	3,144	1,998	1,120	.....
Nov.	46,711	.....	20,499	5,450	....	....	.....	....	....	....	2,840	.....	....	....	1,232	.....

(a) Production credited to Australia includes lead refined in England from Australian base bullion.

World Production of Slab Zinc

(American Bureau of Metal Statistics)

(In Tons of 2,000 Pounds)

	United States (a)	Can. (b)	Mexico	Peru (b-c)	Belgium	France (a)	Fed. Rep. of Germany	Great Britain	Italy	Nether-lands	Norway (b)	Spain	Yugo-slovia	Japan (a)	Aus-tralia (b)	Rho-desia (b)	Total (d)
1951																	
Total	931,833	218,548	57,990	1,003	220,479	82,184	155,024	78,101	52,058	24,924	44,971	23,444	....	62,109	88,103	25,301	2,065,216
1952																	
Total	961,430	223,140	61,456	5,491	205,909	88,255	162,272	76,981	60,438	28,555	43,061	23,329	15,943	77,203	97,931	25,637	2,141,088
1953																	
May	82,422	20,090	4,814	631	19,216	8,088	13,228	6,423	6,594	2,296	3,691	2,140	1,458	7,456	8,211	2,268	189,026
June	81,617	20,590	4,918	406	17,789	7,185	13,023	7,980	6,508	2,126	3,527	2,095	1,381	7,271	7,249	2,408	186,023
July	80,825	21,595	5,071	757	16,824	7,447	13,414	6,198	6,356	2,179	1,898	1,985	1,281	7,833	8,195	2,464	184,241
Aug.	83,241	21,703	5,096	1,002	16,135	5,295	13,783	5,947	6,444	2,235	3,784	1,889	1,219	7,803	8,292	2,520	184,167
Sept.	81,211	21,157	4,975	882	16,248	6,497	13,821	7,355	5,941	2,178	4,506	1,965	1,272	7,417	8,164	2,464	183,899
Oct.	84,031	21,880	5,077	967	16,584	7,275	14,484	5,808	5,748	2,305	4,469	2,256	1,337	7,528	9,545	2,436	191,766
Nov.	75,891	21,051	4,931	932	17,183	7,460	14,392	8,211	5,446	2,276	2,916	2,259	1,314	6,943	9,471	2,576	181,006
Dec.	79,116	21,899	5,170	1,119	18,218	9,424	15,098	7,623	5,035	2,286	2,852	2,324	1,346	8,176	9,841	2,688	192,215
Total	971,191	247,707	59,589	9,819	213,215	89,218	163,430	81,436	65,730	27,721	42,566	24,152	16,037	86,833	101,003	28,370	2,228,017
1954																	
Jan.	78,561	17,156	5,151	1,065	19,032	10,081	15,453	7,114	5,358	1,958	3,670	2,261	1,305	8,383	9,482	2,520	188,550
Feb.	68,020	15,199	4,710	1,078	18,963	8,988	13,872	6,676	4,674	2,114	3,629	1,938	1,210	7,711	8,961	2,380	170,123
Mar.	71,186	16,550	5,258	1,537	19,213	10,645	15,420	9,119	5,503	2,474	4,522	2,137	1,236	9,588	10,012	2,520	186,920
Apr.	70,258	16,250	4,798	1,365	19,262	10,413	15,287	6,808	5,832	2,452	4,102	1,921	1,256	9,526	9,736	2,520	181,876
May	73,654	16,530	5,090	1,689	20,095	10,485	15,859	7,253	5,992	2,562	4,153	1,990	1,386	9,880	10,031	2,576	189,225
June	71,540	17,017	4,826	1,641	19,977	10,159	15,014	9,365	5,857	2,479	4,042	1,986	619	9,073	9,374	2,604	185,573
July	70,749	17,917	5,038	1,573	20,222	10,341	15,764	6,316	7,495	2,600	4,233	2,223	1,166	9,747	10,487	2,604	188,475
Aug.	71,810	18,756	5,035	1,609	20,009	10,451	15,691	7,072	6,500	2,438	4,611	2,241	1,279	9,416	10,100	2,632	189,650
Sept.	60,137	18,023	4,876	1,373	19,839	8,371	14,911	8,576	6,033	2,358	4,215	2,113	1,317	9,239	9,688	2,408	173,648
Oct.	67,047	18,871	5,241	1,272	19,391	11,107	15,739	7,196	6,859	2,417	4,166	2,237	1,445	9,944	9,902	2,296	185,130
Nov.	80,119	19,622	1,272	....	.....	.....	.....	6,897	....	2,438	3,850	....	.....	8,693	....	2,072	.....

(a) Partially electrolytic. (b) Entirely electrolytic. (c) Beginning 1954 both electrolytic and electrothemic. (d) The above totals omits production in Russia, Czechoslovakia, Poland and in Argentina.

U. K. Virgin Copper Stocks

British Bureau of Non-Ferrous Metal Statistics

(In long tons)

At start of:	1952	1953	1954
Jan.	113,359	131,968	55,344
Feb.	106,890	135,221	60,402
Mar.	103,123	146,911	60,084
Apr.	103,521	149,177	47,258
May	107,906	165,385	60,118
June	114,119	182,500	65,314
July	106,809	185,946	68,037
Aug.	107,619	198,609	67,307
Sept.	121,152	27,422	77,323
Oct.	121,649	31,850	72,266
Nov.	119,052	36,824	61,484
Dec.	126,394	50,407	.....

U. K. Refined Lead Stocks

British Bureau of Non-Ferrous Metal Statistics

(In long tons)

At start of:	1952	1953	1954
Jan.	77,167	23,090	26,887
Feb.	89,831	27,486	32,653
Mar.	104,206	16,518	30,697
Apr.	110,598	13,781	28,312
May	116,249	17,144	30,005
June	120,261	29,007	29,793
July	121,576	26,868	30,437
Aug.	116,283	25,820	29,492
Sept.	116,480	28,290	26,298
Oct.	109,323	22,886	28,958
Nov.	107,160	29,279	22,269
Dec.	88,514	29,174	.....

U. K. Stocks of Zinc

British Bureau of Non-Ferrous Metal Statistics

(In tons of 2,240 lbs.)

	Virgin Zinc		Zinc. Conc.	
At start of:	1953	1954	1953	1954
Jan.	166,050	27,652	52,422	45,731
Feb	16,545	35,411	61,346	42,581
Mar.	20,401	37,646	64,625	33,912
Apr.	23,783	40,710	56,489	26,076
May	30,821	38,953	58,815	32,517
June	34,078	38,409	56,514	33,801
July	31,661	40,389	55,218	39,280
Aug.	34,609	45,825	54,467	43,705
Sept.	33,348	48,769	55,702	41,467
Oct.	27,981	47,314	49,636	46,221
Nov.	24,731	44,611	46,173	41,885
Dec.	22,462	.....	45,094	.....

U. K. Copper Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1954		
(Gross Weight)	Jan.–Nov.	Oct.	Nov.
Copper and copper alloys	363,823	19,641	42,049
Copper unwrought:			
Electrolytic	224,194	13,189	25,846
Other refined	16,103	1,173	1,326
Blister or rough	123,228	5,235	14,867
Rods, sections, etc., and wire of brass and other alloys of copper	85	30	2
Other	213	14	8
U. of S. Africa	2,874	2	...
N. Rhodesia	218,120	8,466	27,798
Canada	58,833	4,122	4,247
Belgium	13,153	800	1,661
W. Germany	10,077	1,457	795
Norway	876	485	390
Sweden	504	200	301
United States	18,095	2,112	1,349
Chile	30,419	1,275	3,350
Other countries	10,872	722	2,158
Total	363,823	19,641	42,049

Copper Consumption in United Kingdom

British Bureau of Non-Ferrous Metal Statistics

(In tons of 2,240 pounds)

	Unalloyed	Brass, etc	Sulphate	Total	Virgin	Scrap
1949 Total	305,614	180,227	10,879	496,720	318,736	177,984
1950 Total	303,833	204,427	13,738	521,998	333,700	188,298
1951 Total	300,665	243,152	11,041	554,853	330,361	224,487
1952 Total	313,374	243,836	14,629	571,839	347,646	224,193
1953						
August	16,097	11,109	463	27,669	22,973	4,696
September	20,947	17,765	737	39,449	29,437	10,012
October	23,618	19,323	801	43,742	32,615	11,127
November	22,285	19,148	784	42,217	31,118	11,099
December	22,952	18,502	779	42,233	32,570	9,663
Total	243,717	192,337	11,206	447,260	322,311	124,949
1954						
January	23,421	18,520	961	42,902	35,344	7,558
February	22,304	19,322	1,041	42,667	31,951	10,716
March	26,049	21,361	1,197	48,607	37,382	11,225
April	23,570	18,542	1,110	43,222	30,938	12,284
May	26,363	20,826	1,210	48,399	37,339	11,060
June	27,893	20,423	1,158	49,474	37,109	12,365
July	23,100	18,082	1,235	42,417	29,644	12,773
August	22,613	16,809	539	39,961	28,741	11,220
September	32,098	21,731	1,137	54,966	43,070	11,896
October	30,603	.....	....	53,319	40,664	12,655

U. K. Zinc Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1954		
(Gross Weight)	Jan.–Nov.	Oct.	Nov.
Zinc ore and conc.	172,600	6,571	21,681
Australia	114,843	...	13,057
Canada	13,857	6,571	...
Other countries	43,900	...	8,624
Zinc conc.†	...	3,364	‡
Canada	...	3,364	...
Zinc and zinc alloys	143,825	9,420	11,179
Zinc or spelter, unwrought in ingots, blocks, bars, slabs, and cakes	143,181	9,327	11,050
Other	644	93	129
N. Rhodesia	6,762	300	400
Australia	15,183	1,650	2,070
Canada	64,584	6,036	6,412
Belgium	17,543	949	1,142
Germany (W.)	40	10	10
Netherlands	1,868	25	126
Norway	1,734	...	...
United States	27,533	100	499
Other countries	8,578	350	520
Total	143,825	9,420	11,179

† British Bureau of Non-Ferrous Metal Statistics. The estimated zinc content is not the content of the gross weight as officially reported for any comparable period.

‡ Not yet available.

Zinc Imports and Exports by Principal Countries

(A.B.M.S.)

Reported in slabs, blocks, etc.; metric tons except where otherwise noted.

IMPORTS

	1954		
	Aug.	Sept.	Oct.
U. S. (s.t.)	11,410	10,914	11,467
Canada (s.t.)	3	57	...
Belgium	102	51	...
Denmark	461	400	759
France	683	876	1,392
Germany†	4,204	4,563	...
Italy	484	319	...
Netherlands	1,370	485	...
Sweden	2,344	3,204	...
Switzerland†	819	1,754	1,590
U. K. (l.t.)	9,020	12,783	9,420
India (l.t.)	5,152	1,009	3,087

EXPORTS

U. S. (s.t.)	1,230	1,021	1,983
Canada (s.t.)	14,934	17,297	...
Belgium	11,604	11,188	...
Denmark	279	25	80
France	141	55	86
Germany†	627	1,026	...
Italy	2,147	1,259	...
Netherlands	844	465	...
Norway	2,801	...	...
Switzerland†	518	196	694
U. K.‡ (l.t.)	685	312	422
N. Rhodesia (l.t.)	2,320	2,086	2,301
Belg. Congo	...	7,364*	...

† Includes scrap.
‡ Includes manufactures.
* August–September.

United Kingdom Tin Statistics

(British Bureau of Non-Ferrous Metal Statistics)

	Tin Content of Tin in Ore			Tin Metal				
	Imports	Production*	Stock at end of period*	Imports	Production*	Consumption	Exports & Re-exports	Stock at end of period
1952 Total	28,836	954	2,364	2,885	29,521	22,555	21,721	4,225
1953 Total	28,907	1,103	2,843	1,038	28,860	18,634	14,450	3,085
1954								
January	1,738	75	1,444	10	2,718	1,664	652	3,530
February	1,668	78	1,247	86	1,960	1,673	1,242	2,728
March	3,352	92	3,459	320	1,452	1,987	546	2,598
April	2,597	92	2,909	691	2,696	1,702	341	4,065
May	1,898	79	2,045	209	2,721	1,732	773	4,347
June	2,406	79	1,760	34	2,403	1,860	1,150	4,075
July	1,940	122	1,502	25	2,485	1,519	909	3,823
August	3,272	31	2,531	417	2,112	1,328	817	4,182
September	1,563	79	1,781	7	2,355	2,034	719	4,657
October	1,901	....	....	0	....	1,790	472	4,425

*As reported by International Tin Study Group. Production of Tin Metal includes production from imported scrap and residues refined on toll. Stocks exclude strategic stock but include official warehouse stocks.

Canada's Copper Output

(Dominion Bureau of Statistics)

(Refined Copper)
(In Tons)

	1951	1952	1953	1954
Jan.	20,870	20,364	21,830	15,091
Feb.	18,342	18,901	21,075	13,954
Mar.	20,564	20,480	22,432	21,075
Apr.	20,347	20,363	21,747	20,412
May	22,731	20,548	20,179	23,012
June	21,315	20,274	18,384	23,344
July	20,142	14,196	19,996	21,582
Aug.	21,740	9,396	19,886	22,000
Sept.	18,624	10,323	16,777	22,684
Oct.	21,260	12,761	17,675	22,661
Nov.	19,195	11,282	17,101	.....
Dec.	20,336	17,432	18,703	.....
Year	245,466	196,320	235,787	.....

Canada's Lead Exports

(Dominion Bureau of Statistics)

(In Pigs)
(In Tons)

	1951	1952	1953	1954
Jan.	10,081	8,136	11,212	6,170
Feb.	6,527	9,702	8,710	7,560
Mar.	10,873	10,851	14,943	11,092
Apr.	8,537	10,450	14,765	9,606
May	14,813	11,020	7,039	11,483
June	5,756	10,466	13,434	12,018
July	5,795	10,249	1,537	13,152
Aug.	4,894	10,642	8,869	8,646
Sept.	6,944	14,121	3,903	10,045
Oct.	8,660	13,193	7,532	8,005
Nov.	12,929	12,703	6,581	....
Dec.	9,927	8,208	4,354	....
Year	105,736	129,741	102,879	.....

Canada's Silver Exports

(Dominion Bureau of Statistics)

(In ores and concentrates)
(Fine Ounces)

	1952	1953	1954
Jan.	172,826	522,073	547,951
Feb.	144,635	218,421	567,225
Mar.	154,163	263,650	849,502
Apr.	280,130	311,141	572,059
May	222,133	419,569	660,724
June	273,447	323,913	682,906
July	380,190	614,320	1,210,045
Aug.	277,597	533,155	953,379
Sept.	209,566	527,771	605,188
Oct.	928,483	1,015,012	612,874
Nov.	353,841	463,667	.....
Dec.	149,437	473,826	.....
Year	3,546,448	5,686,518	.....

Canada's Copper Exports

(Dominion Bureau of Statistics)

(Ingots, bars, slabs and billets)
(In Tons)

	1951	1952	1953	1954
Jan.	8,081	9,237	7,668	9,081
Feb.	6,600	4,947	16,411	8,385
Mar.	7,388	11,104	10,578	11,671
Apr.	12,336	10,948	11,153	11,218
May	6,940	11,355	14,726	18,407
June	8,115	8,178	15,053	14,877
July	9,160	7,815	13,939	15,467
Aug.	6,503	13,739	7,272	14,158
Sept.	8,010	10,908	8,139	14,069
Oct.	6,968	11,040	8,957	11,528
Nov.	3,387	10,004	9,062	.....
Dec.	13,343	4,500	9,036	.....
Year	101,831	113,675	131,994	.....

Canada's Zinc Output

(Dominion Bureau of Statistics)

(Refined Zinc)
(In Tons)

	1951	1952	1953	1954
Jan.	18,244	19,242	18,370	17,155
Feb.	16,710	17,411	18,677	15,199
Mar.	18,138	18,953	20,693	16,550
Apr.	17,484	19,415	20,003	16,249
May	18,116	18,786	20,090	16,530
June	18,222	18,728	20,589	17,017
July	18,232	19,411	21,595	17,917
Aug.	18,352	18,924	21,703	18,755
Sept.	17,956	18,230	21,157	18,023
Oct.	17,786	19,754	21,888	18,871
Nov.	18,683	16,114	21,051	.....
Dec.	20,271	18,232	21,899	.....
Year	219,194	222,200	247,707	.....

Canada's Silver Output

(Dominion Bureau of Statistics)

(In Ounces)

	1952	1953	1954
Jan.	1,803,848	2,459,531	2,553,293
Feb.	2,022,126	2,255,113	2,050,440
Mar.	2,085,986	2,458,022	2,314,392
Apr.	2,521,864	3,076,852	2,700,315
May	2,274,279	2,520,180	2,507,702
June	1,907,137	1,538,663	2,704,394
July	1,831,089	2,353,542	2,734,801
Aug.	2,214,798	2,029,346	2,787,085
Sept.	1,817,435	2,067,294	2,753,545
Oct.	1,857,118	2,097,630	2,426,523
Nov.	2,421,617	2,207,170	.....
Dec.	2,464,930	2,361,452	.....
Year	25,222,227	28,424,795	.....

Canada's Lead Output

(Dominion Bureau of Statistics)

(Recoverable Lead)*
(In Tons)

	1951	1952	1953	1954
Jan.	16,099	15,271	19,502	17,716
Feb.	12,001	11,072	16,888	16,863
Mar.	12,632	15,522	14,183	17,104
Apr.	10,063	14,547	18,640	19,452
May	11,126	13,770	16,120	19,953
June	13,811	11,172	15,302	18,988
July	11,017	11,460	11,969	19,164
Aug.	13,797	13,605	13,864	18,237
Sept.	11,899	14,488	14,335	17,066
Oct.	15,052	16,641	16,327	16,569
Nov.	14,785	12,884	19,433	.....
Dec.	15,562	18,406	19,273	.....
Year	158,231	168,842	195,836	.....

* New base bullion from Canadian ores plus recoverable lead in ores or concentrates shipped for export.

Canada's Zinc Exports

(Dominion Bureau of Statistics)

(Slabs in Tons)

	1951	1952	1953	1954
Jan.	13,277	9,209	17,478	16,625
Feb.	4,602	17,639	13,580	11,328
Mar.	12,185	21,839	18,307	18,199
Apr.	14,014	18,205	17,068	17,926
May	13,776	12,514	15,595	13,926
June	14,337	14,393	14,919	15,654
July	13,597	12,800	10,068	27,582
Aug.	11,669	10,040	8,594	14,934
Sept.	10,435	12,594	9,423	17,298
Oct.	16,370	11,454	11,862	13,064
Nov.	12,371	14,135	10,685	.....
Dec.	12,500	12,042	10,809	.....
Year	146,133	166,864	158,388	.....

Canada's Nickel Output

(Dominion Bureau of Statistics)

(In Tons)

	1951	1952	1953	1954
Jan.	10,993	11,813	12,446	12,670
Feb.	9,702	10,719	10,612	11,795
Mar.	11,676	12,381	12,218	13,502
Apr.	10,603	12,318	11,791	12,931
May	12,528	12,413	11,560	13,364
June	11,889	12,563	11,647	13,174
July	11,828	10,426	11,751	12,801
Aug.	12,304	11,975	11,681	13,319
Sept.	11,682	10,982	11,981	13,438
Oct.	11,758	11,773	12,419	13,969
Nov.	11,570	11,381	12,714	.....
Dec.	11,370	11,815	11,996	.....
Year	137,903	140,559	143,016	.....

Canadian Copper Exports

(Dominion Bureau of Statistics)
(A.B.M.S.)

(In tons of 2,000 lbs.)

	1954		
	Jan.–Oct.	Sept.	Oct.
Ore, matte, regulus, etc. (content)	39,396	3,152	3,185
United States	27,980	2,184	2,107
Germany (W.)	1,441	...	337
Norway	9,066	884	681
U. Kingdom	909	84	60
Ingots, bars, billets	128,861	14,068	11,529
United States	47,544	6,640	4,008
Brazil	5,145	1,424	237
France	6,404	224	1,323
Germany (W.)	269	...	...
Switzerland	112	...	...
U. Kingdom	67,559	5,780	5,233
Australia	566	...	280
India	1,260	...	448
Other countries	2	...	...
Total Exports:			
Crude & refined	168,257	17,220	14,714
Old and scrap	7,637	603	702
Rods, strips, sheet and tubing	6,897	1,294	830

Canadian Lead Exports

(Dominion Bureau of Statistics)
(A.B.M.S.)

(In tons of 2,000 lbs.)

	1954		
	Jan.–Oct.	Sept.	Oct.
Ore (lead content)	46,777	3,135	3,159
United States	34,100	3,135	2,430
Belgium	5,273	...	...
Germany (W.)	7,404	...	729
Refined lead	97,776	10,045	8,005
United States	53,665	2,911	4,544
Cuba	1	...	...
Brazil	2,397	1,007	...
Venezuela	86	41	...
Norway	112	...	...
Switzerland	56	...	...
U. Kingdom	38,416	5,712	3,192
Japan	3,039	374	269
Other countries	4	...	...
Total Exports:			
Ore & refined	144,553	13,180	11,164
Pipe & tubing	22	...	1
Lead scrap	458	210	108

Canadian Zinc Exports

(Dominion Bureau of Statistics)
(A.B.M.S.)

(In tons of 2,000 lbs.)

	1954		
	Jan.–Oct.	Sept.	Oct.
Ore (zinc content)	135,726	15,823	9,293
United States	111,757	11,587	9,293
Belgium	8,593	...	...
France	1,787	...	...
Norway	4,583	...	...
U. Kingdom	9,006	4,236	...
Slab zinc	166,534	17,297	13,064
United States	89,323	5,200	5,665
Brazil	581	33	35
Italy	224	224	...
Netherlands	896	112	448
U. Kingdom	71,589	10,048	5,181
Korea	512	...	38
India	3,377	1,680	1,697
Other countries	32	...	...
Total Exports:			
Ore and slabs	302,260	33,120	22,357
Zinc scrap, dross, ashes	3,729	386	664
United States	228	34	22
Belgium	2,598	252	563
Germany (W)	423	100	...
Netherlands	363	...	66
Japan	60	...	13
India	57	...	...

Copper Imports and Exports by Principal Countries

(A.B.M.S.)

Reported in ingots, slabs, etc.; metric tons except where otherwise noted.

IMPORTS

	1954		
	Aug.	Sept.	Oct.
U. S. (blist., s.t.)	27,520	23,314	12,370
(ref., s.t.)	16,413	19,648	8,095
Belgium†	19,546	17,246	...
Denmark	206	302	196
France (crude)	...	813	...
(refined)	9,710	15,701	13,970
Italy	7,212	7,937	...
Germany	14,909	18,107	...
Netherlands	3,304	2,598	...
Norway	437	...	...
Sweden	3,385	4,882	...
Switzerland	3,776	3,754	1,317
U. K. (l.t.)	35,438	38,518	19,641
India (ref., l.t.)	1,862	1,979	1,689

EXPORTS

U. S. (ref., s.t.)	23,245	13,464	20,073
Canada (ref., s.t.)	14,158	14,068	...
Belgium†	6,791	10,831	...
Denmark	...	2	11
Finland†	...	255	...
Germany	3,374	4,316	...
Norway	515	...	...
Sweden	1,967	1,060	...
U. K. (l.t.)	2,353	813	110
Belg. Congo††	...	34,865*	...
No. Rhodesia (ref. & blist., l.t.)	35,866	25,856	35,092

† Includes copper alloys.

†† Copper wire bars and ingot bars 99% and copper ingots 97%.

‡ Includes old.

*August–September.

French Zinc Imports

(A.B.M.S.)

(In metric tons)

	1954		
	Jan.–Nov.	Oct.	Nov.
Ore (gross weight)	216,509	11,071	16,270
Canada	6,753	...	270
Peru	5,447	...	...
Belgium	7,516	500	...
Germany (W.)	2,555	480	...
Greece	3,680	479	501
Italy	16,218	...	2,557
Norway	1,589	...	...
Spain	44,757	6,194	4,469
Yugoslavia	2,000	2,000	...
Algeria	30,800	10	...
Fr. Morocco	68,302	966	4,409
Tunisia	6,658	...	...
Belg. Congo	3,500	...	...
Australia	16,734	442	4,064
Slabs, bars, blocks, etc.	14,467	1,392	1,236
United States	102	...	...
Canada	435	...	...
Mexico	329	...	...
Belgium	11,112	1,297	1,096
Germany (W.)	50	...	...
Italy	1,115	85	100
Netherlands	250	...	...
Norway	534	...	...
U. Kingdom	154	...	...
Yugoslavia	50	...	...
Algeria	153	10	40
Other Br. Africa (East Coast)	112	...	...
U. of S. Africa	71	...	...

U. K. Copper Exports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1954		
	Jan.–Nov.	Oct.	Nov.
(Gross Weight)			
Copper unwrought, ingots, blocks, slabs, bars, etc.	19,784	110	409
Plates, sheets, rods, etc.	20,201	1,436	1,378
Wire (including uninsulated electric wire)	5,215	1,756	566
Tubes	4,535	430	390
Other copper, worked (incl. pipe fittings)	586	62	19
Total	50,321	3,794	2,762

French Copper Imports

(A.B.M.S.)

(In metric tons)

	1954		
	Jan.–Nov.	Oct.	Nov.
Crude copper for refining (blister, black and cement)	8,712	...	...
Belg. Congo	4,116	...	...
U. of S. Africa	4,596	...	...
Refined	119,052	13,970	11,468
United States	29,701	4,914	2,354
Canada	6,110	731	722
Chile	262	...	...
Peru	3,687	68	260
Belgium	31,439	2,647	3,892
Germany (W.)	2,754	162	622
Norway	202	...	...
Sweden	274	145	22
U. Kingdom	3,605	86	15
Yugoslavia	406	75	75
Belg. Congo	34,658	4,262	3,100
Fr. Morocco	103	...	...
U. of S. Africa	376	376	...
Other Br. Africa (East Coast)	4,107	...	...
Rhodesia-Nyassaland	1,062	459	356
Other countries	306	45	50
Total Imports:			
Crude & refined	127,764	13,970	11,468

French Metal Exports

(A.B.M.S.)

(In metric tons)

	1954		
	Jan.–Nov.	Oct.	Nov.
Lead:			
Ore (gross weight)	362	10	201
Pig lead:			
Argentiferous	23	...	20
Non-argentiferous	12,905	328	491
Antimonial lead	375	62	8
Zinc:			
Ore (gross weight)	1,507	1,507	...
Belgium	523	523	...
Netherlands	984	984	...
Slabs, bars, blocks, etc.	1,017	86	22
Copper:			
Crude copper for refining (blister, black and cement)	1,177	23	...

Nonferrous Castings

MONTHLY SHIPMENTS, BY TYPE OF METAL

(Bureau of Census — Thousands of Pounds)

	Aluminum	Copper	Magnesium	Zinc	Lead Die
1949 Total	304,409	724,053	9,364	377,779	9,101
1950 Total	543,082	1,056,973	15,224	579,332	20,977
1951 Total	515,131	1,197,443	30,825	487,996	25,936
1952					
December	53,343	90,799	3,110	42,148	1,648
Total	518,979	1,009,910	34,857	408,353	20,941
1953					
May	57,340	84,550	2,705	44,174	1,792
June	56,492	83,947	3,063	48,806	1,777
July	51,196	69,597	2,287	39,968	1,506
August	50,428	77,652	2,490	37,800	1,806
September	53,306	79,595	2,455	38,611	1,743
October	55,097	83,899	3,024	40,882	1,709
November	51,014	74,782	2,681	37,688	1,405
December	51,579	77,675	2,691	38,661	1,231
Total	658,022	990,496	34,517	521,253	20,444
1954					
January	51,446	71,437	2,451	40,396	1,514
February	51,213	68,849	2,194	37,660	1,303
March	56,184	76,480	2,407	42,991	1,335
April	53,006	72,900	2,068	38,968	1,559
May	47,663	67,859	1,738	36,793	1,529
June	48,061	70,777	2,034	40,708	1,712
July	39,636	56,380	1,924	28,306	1,391
August	42,429	68,891	2,157	34,639	1,726
September	46,249	68,267	2,059	36,594	1,625

*Computed on new basis as of October, 1952.

Copper Castings Shipments

BY TYPE OF CASTING

(Bureau of Census) **(Thousands of Pounds)**

	Total	Sand	Permanent Mold	Die	All Other
1949 Total	724,053	654,444	37,311	8,817	23,481
1950 Total	1,015,679	918,883	52,756	13,224	30,816
1951 Total	1,197,443	1,075,437	69,883	12,516	39,607
1952 Total	1,009,910	910,862	63,865	8,259	26,924
1953					
July	69,957	63,365	3,927	692	1,973
August	77,652	69,852	4,890	854	2,056
September	79,595	71,184	5,273	840	2,298
October	83,899	74,460	5,775	853	2,811
November	74,782	66,370	5,077	757	2,578
December	77,675	68,821	5,082	818	2,854
Total	990,496	888,369	61,316	10,077	30,734
1954					
January	71,437	63,034	4,618	816	2,969
February	68,849	60,913	4,743	758	2,435
March	76,480	67,952	5,123	875	2,530
April	72,900	65,418	4,732	377	2,373
May	67,859	61,469	3,755	318	2,317
June	70,777	64,328	3,567	456	2,426
July	56,380	51,070	3,073	393	1,844
August	68,891	63,389	3,547	429	1,496
September	68,267	62,152	3,637	548	1,930
October	70,036	63,614	3,620	521	2,281

*Computed on new basis as of October, 1952.

Nickel Averages

Electro, cathode sheets, 99.00%, f.o.b. refinery, duty included

(cents per pound)

	1951	1952	1953	1954
Jan.	50.50	56.50	58.62	60.00
Feb.	50.50	56.50	60.00	60.00
Mar.	50.50	56.50	60.00	60.00
Apr.	50.50	56.50	60.00	60.00
May	50.50	56.50	60.00	60.00
June	56.27	56.50	60.00	60.00
July	56.50	56.50	60.00	60.00
Aug.	56.50	56.50	60.00	60.00
Sept.	56.50	56.50	60.00	60.00
Oct.	56.50	56.50	60.00	60.00
Nov.	56.50	56.50	60.00	60.98
Dec.	56.50	56.50	60.00	64.50
Av.	53.98	56.50	59.885	60.46

Platinum Averages

N. Y. MONTHLY QUOTATIONS

(Dollars per Troy Ounce)

	1951	1952	1953	1954
Jan.	91.50	91.50	91.50	91.40
Feb.	91.50	91.50	91.50	91.00
Mar.	91.50	91.50	91.50	87.88
Apr.	91.50	91.50	91.50	85.50
May	91.50	91.50	91.50	85.50
June	91.50	91.50	92.81	85.50
July	91.50	91.50	94.00	85.50
Aug.	91.50	91.50	94.00	85.50
Sept.	91.50	91.50	92.50	85.50
Oct.	91.50	91.50	92.50	83.62
Nov.	91.50	91.50	92.50	81.07
Dec.	91.50	91.50	92.15	80.64
Av.	91.50	91.50	92.496	85.72

Prompt Tin Prices

(Straits, Open Market, N. Y.)

Monthly Average Prices

(cents per pound)

	1951	1952	1953	1954
Jan.	171.74	109.727†	121.50	84.84
Feb.	182.68	121.50†	121.50	85.04
Mar.	146.035†	121.50†	121.415	91.24
Apr.	145.95†	121.50†	101.07	96.238
May	139.954†	121.50†	97.387	93.51
June	118.048†	121.50†	92.933	94.24
July	106.00†	121.50†	81.826	96.55
Aug.	103.00†	121.50†	80.69	93.381
Sept.	103.00†	121.375	82.275	93.536
Oct.	103.00†	121.228	80.897	93.00
Nov.	103.00†	121.25	83.26	91.099
Dec.	103.00†	121.465	84.693	88.571
Av.	127.12	(A)	95.787	91.77

†RFC Prompt Grade A from March 13, 1951.

(A) RFC 1952 average price, 120.519c. Average Open Market Price, last four months of 1952, 121.344c.

Monthly Tin Production at Longhorn Smelter

(From Concentrates)

(In tons of 2,240 pounds)

	1951	1952	1953	1954
Jan.	3,211	1,802	4,000	2,700
Feb.	3,096	1,800	3,400	3,008
Mar.	3,036	1,800	3,850	3,559
Apr.	3,058	1,800	3,750	3,006
May	3,059	1,800	3,100	2,054
June	2,655	NIL	3,000	1,205
July	2,406	NIL	3,000	NIL
Aug.	2,543	NIL	2,600	2,002
Sept.	2,155	2,450	2,700	2,404
Oct.	2,091	3,364	2,751	2,404
Nov.	1,806	4,020	2,750	2,404
Dec.	1,805	3,705	2,750	....
Total	30,921	22,541	37,651	....

Quicksilver Averages

N. Y. Monthly Averages

Virgin, Dollars per 76-lb. Flask

	1951	1952	1953	1954
Jan.	199.18	209.19	214.88	189.60
Feb.	218.05	201.74	207.37	190.00
Mar.	216.92	207.74	199.92	201.63
Apr.	217.14	205.08	197.90	221.36
May	214.462	200.81	196.50	251.20
June	211.00	196.38	193.42	273.46
July	207.46	192.154	192.21	287.40
Aug.	199.24	188.115	190.42	290.71
Sept.	208.65	190.76	187.04	314.08
Oct.	220.02	194.00	184.62	329.50
Nov.	217.87	202.64	186.00	321.17
Dec.	214.92	215.30	188.38	319.96
Av.	212.08	200.50	194.89	265.84

Primary Aluminum Output, Shipments and Stocks

(U. S. Department of Interior)

	Stocks beginning of month short tons	Production short tons	Sold or Used Short tons	Sold or Used Value f. o. b. plant	Stocks end of month short tons
1953					
October	26,991	108,219	113,420	45,733,162	21,790
November	21,790	105,636	97,374	39,304,264	30,052
December	30,052	110,291	101,024	40,681,905	39,317
1954					
January	39,319	116,247	112,831	45,540,192	42,735
February	42,735	110,483	94,724	38,110,318	58,494
March	58,494	122,339	117,587	47,220,513	63,246
April	63,246	120,434	120,786	48,598,623	62,894
May	62,894	125,138	115,838	46,534,504	72,194
June	72,194	120,758	124,914	50,460,097	68,038
July	68,038	126,161	118,578	47,659,340	75,621
August	75,621	125,296	130,668	52,658,509	70,249
September	70,249	120,332	141,709	58,299,854	48,872
October	48,872	125,089	138,221	56,768,464	35,740

Aluminum Wrought Products

PRODUCERS' MONTHLY NET SHIPMENTS

(Bureau of Census — Thousands of Pounds)

	Total	Plate, Sheet, & Strip	Rolled Structural Shapes, Rod, Bar & Wire	Extruded Shapes Tube Blooms & Tubing	Powder, Flake, & Paste
1948 Total	1,640,206	1,268,297	182,991	171,964	16,954
1949 Total	1,158,146	790,025	203,650	149,995	14,476
1950 Total	1,713,449	1,163,135	269,780	258,075	22,459
1951 Total	1,756,244	1,073,367	345,163	312,944	24,770
1952 Total	1,924,750	1,085,699	443,546	347,542	47,963
1953					
May	209,667	123,616	41,725	40,628	3,698
June	205,585	121,219	40,258	41,224	2,884
July	202,796	123,429	37,453	39,273	2,641
August	191,007	117,826	32,180	37,623	3,378
September	184,143	111,807	33,295	35,597	3,444
October	186,056	113,589	29,168	38,720	4,579
November	148,894	89,383	24,041	31,590	3,880
December	149,221	91,162	23,187	30,709	4,163
Total	2,286,865	1,368,165	422,046	451,922	44,732
1954					
January	153,920	84,293	31,600	34,576	3,451
February	145,335	80,505	29,577	31,583	3,664
March	170,010	92,955	32,698	38,928	5,429
April	174,176	96,893	33,637	39,246	4,420
May	168,678	94,886	21,197	40,981	3,514
June	184,205	102,026	31,299	46,146	4,734
July	169,917	94,656	28,732	42,686	3,843
August	184,767	104,580	33,797	44,020	3,684
September	179,664	101,075	30,904	48,978	3,684
October	180,450	100,787	26,954	48,978	3,731

Aluminum Castings Shipments

(Bureau of Census)

BY TYPE OF CASTING

(Thousands of Pounds)

	Total	Permanent Mold — Sand	Permanent Mold — Mold	Die	All Other
1949 Total	351,778	122,604	123,523	93,340	7,311
1950 Total	543,082	184,782	181,366	167,201	9,733
1951 Total	515,131	193,378	160,011	151,465	10,277
1952 Total	518,979	194,616	146,883	169,732	7,748
1953					
July	51,196	16,614	15,692	18,549	341
August	50,428	15,940	16,252	17,837	399
September	53,306	17,826	17,189	17,857	416
October	55,097	17,171	17,030	20,547	349
November	51,014	16,169	15,396	19,012	437
December	51,579	15,265	16,907	18,963	436
Total	658,022	214,553	200,025	239,330	4,114
1954					
January	51,446	14,698	16,615	19,709	424
February	51,213	14,696	17,281	18,754	482
March	56,184	14,468	19,576	21,645	495
April	53,006	14,073	18,091	20,366	476
May	47,663	12,461	16,312	18,368	522
June	48,061	12,442	17,105	17,886	628
July	39,636	11,299	13,749	14,004	584
August	42,429	11,252	15,335	15,213	629
September	46,249	10,717	16,641	18,223	663
October	53,421	12,375	19,148	21,245	653

*Computed on new basis as of October, 1952.

Virgin Aluminum

Virgin 99% Delivered

Monthly Average Prices

(Cents per pound)

	1951	1952	1953	1954
Jan.	19.00	19.00	20.173	21.50
Feb.	19.00	19.00	20.50	21.50
Mar.	19.00	19.00	20.50	21.50
Apr.	19.00	19.00	20.50	21.50
May	19.00	19.00	20.50	21.50
June	19.00	19.00	20.50	21.50
July	19.00	19.00	20.962	21.50
Aug.	19.00	19.846	21.50	22.12
Sept.	19.00	20.00	21.50	22.20
Oct.	19.00	20.00	21.50	22.20
Nov.	19.00	20.00	21.50	22.20
Dec.	19.00	20.00	21.50	22.20
Av.	19.00	19.404	20.928	21.785

Magnesium Wrought Products Shipments

(Bureau of Census)

(Thousands of Pounds)

	1951	1952	1953	1954
Jan.	1,522	1,635	1,313	972
Feb.	1,489	1,748	1,454	1,058
Mar.	1,889	1,712	1,601	1,136
Apr.	1,531	1,745	1,708	892
May	1,716	1,804	1,699	1,129
June	1,643	1,428	1,192	1,312
July	1,391	1,390	1,589	1,032
Aug.	1,497	1,438	1,433	1,111
Sept.	1,461	1,305	1,254	1,183
Oct.	1,773	1,408	1,409	1,002
Nov.	1,645	1,178	1,314	....
Dec.	1,533	1,440	919	....
Total	19,090	18,249	16,885	....
Total	12,810	19,090	18,249	16,885

Cadmium Averages

N. Y. Monthly Averages

Cents per lb. in ton lots

	1951	1952	1953	1954
Jan.	255.00	255.00	193.00	200.00
Feb.	255.00	255.00	200.00	170.00
Mar.	255.00	255.00	200.00	170.00
Apr.	255.00	255.00	200.00	170.00
May	255.00	237.00	200.00	170.00
June	255.00	225.00	200.00	170.00
July	255.00	225.00	200.00	170.00
Aug.	255.00	200.00	200.00	170.00
Sept.	255.00	200.00	200.00	170.00
Oct.	255.00	200.00	200.00	170.00
Nov.	255.00	200.00	200.00	170.00
Dec.	255.00	179.81	200.00	170.00
Av.	255.00	223.90	199.44	172.50

Steel Ingot Production

(American Iron and Steel Institute)

Estimated Production — All Companies

Period	OPEN HEARTH Net tons	OPEN HEARTH Per cent of capacity	BESSEMER Net tons	BESSEMER Per cent of capacity	ELECTRIC Net tons	ELECTRIC Per cent of capacity	TOTAL Net tons	TOTAL Per cent of capacity	Calculated weekly production, all companies (net tons)
1949 Total	70,227,775	82.8	3,946,656	76.0	3,693,922	60.4	77,868,353	81.0	1,492,443
1950 Total	86,262,509	98.7	4,534,558	81.3	6,039,008	86.5	96,836,075	96 9	1,857,232
1951 Total	93,146,625	102.3	4,890,946	87.0	7,096,982	93.9	105,134,553	100.9	2,016,390
1952 Total	82,846,439	87.2	3,523,677	65.5	6,797,923	82.6	93,168,039	85.8	1,782,097
1953									
June	8,394,502	99.4	332,060	87.0	677,917	80.5	9,404,479	97.2	2,192,186
July	8,316,342	95.5	324,068	82.4	635,263	73.2	9,275,673	93.1	2,098,569
August	8,463,155	97.0	310,074	78.7	632,351	72.7	9,405,580	94.2	2,123,156
September	8,076,277	95.8	287,638	75.6	519,513	61.9	8,883,428	92.1	2,075,567
October	8,648,428	99.1	325,250	82.6	489,044	56.3	9,462,722	94.7	2,136,055
November	8,002,349	94.7	283,321	74.3	404,382	48.0	8,690,052	89.9	2,025,653
December	7,321,947	84.1	269,813	68.6	354,568	40.9	7,946,328	79.7	1,797,812
Total	100,473,823	97.9	3,855,705	83.2	7,280,191	71.1	111,609,719	94.9	2,140,578
1954									
January	7,256,526	78.3	260,453	64.0	434,507	48.9	7,951,486	75.3	1,794,918
February	6,523,213	77.9	174,523	47.4	385,771	48.1	7,083,237	74.3	1,770,809
March	6,649,667	71.7	207,726	51.1	432,207	48.3	7,289,600	69.0	1,645,508
April	6,365,326	70.9	162,657	41.3	442,954	51.5	6,910,937	68.0	1,624,927
May	6,817,951	73.6	198,063	48.7	456,724	51.4	7,472,738	70.7	1,686,848
June	6,702,006	74.7	209,666	52.7	453,962	52.8	7,363,634	72.0	1,716,465
July	6,040,120	65.3	205,313	50.6	382,164	43.1	6,627,597	62.9	1,499,456
August	6,021,496	65.0	217,837	53.6	427,574	48.2	6,666,907	63.1	1,504,945
September	6,140,266	68.6	214,065	54.5	453,152	52.8	6,807,483	66.7	1,590,553
October	6,973,568	75.2	237,754	58.5	490,221	55.2	7,701,533	72.9	1,738,495

Blast Furnace Output

American Iron and Steel Institute)

net tons

1945	Pig Iron	Ferro-manganese & Spiegel	Total	% Capacity
Ttl. Yr.	53,454,872	712,210	54,167,082	80.5
1946				
Ttl. Yr.	44,854,801	523,729	45,378,530	67.4
1947				
Ttl. Yr.	58,507,169	702,561	59,209,730	90.1
1948				
Ttl. Yr.	60,135,941	712,899	60,848,840	90.2
1949				
Ttl. Yr.	53,613,779	592,564	54,206,343	76.8
1950				
Ttl. Yr.	64,810,272	673,896	65,484,168	91.5
1951				
Ttl. Yr.	70,487,380	745,381	71,232,761	98.3
1952				
Oct.	6,442,024	73,067	6,515,091	104.2
Nov.	6,155,565	71,723	6,227,283	102.9
Dec.	6,436,136	73,400	6,509,536	104.4
Total	61,528,665	629,926	62,158,591	84.2
1953				
Jan.	6,482,081	82,302	6,564,393	97.3
Feb.	5,813,202	68,316	5,881,518	96.6
Mar.	6,611,040	66,321	6,677,361	99.0
Apr.	6,171,939	58,702	6,230,641	95.4
May	6,519,082	68,033	6,587,115	97.7
June	6,297,559	74,972	6,372,531	97.6
July	6,436,345	80,142	6,516,487	96.8
Aug.	6,391,749	79,805	6,471,554	96.0
Sept.	6,132,330	69,689	6,202,019	95.2
Oct.	6,419,752	77,958	6,497,710	96.3
Nov.	5,999,704	62,896	6,062,600	92.8
Dec.	5,712,938	65,902	5,778,840	85.9
Total	74,987,721	855,038	75,842,759	95.5
1954				
Jan.	5,515,689	63,824	5,579,513	80.1
Feb.	4,764,613	45,941	4,810,554	76.5
Mar.	4,907,147	52,156	4,959,303	71.2
Apr.	4,449,289	53,277	4,502,566	66.7
May	4,572,252	52,187	4,624,439	66.4
June	4,683,629	40,521	4,724,150	70.0
July	4,590,076	36,108	4,626,184	66.6
Aug.	4,529,291	37,744	4,567,035	71.0
Sept.	4,417,888	43,934	4,461,822	66.3
Oct.	4,937,436	46,244	4,983,680	71.5
Nov.	5,204,446	52,454	5,256,900	77.9
Dec.	5,526,720	59,793	5,586,513	80.4
Total	58,119,382	568,735	58,688,117	71.6

Steel Castings Shipments

(Bureau of Census)

	(Short Tons) Total	For Sale	For Own Use
1948	1,760,032	1,335,295	424,737
1949	1,250,460	865,297	385,163
1950	1,461,667	929,192	374,217
1951	2,101,604	1,507,413	594,191
1952			
Aug.	150,232	113,997	36,235
Sept.	158,392	121,402	36,990
Oct.	165,155	124,629	40,529
Nov.	148,259	110,467	37,792
Dec.	162,237	122,670	39,567
Total	1,925,116	1,476,352	448,767
1953			
Jan.	167,211	126,819	40,392
Feb.	175,675	137,592	38,083
Mar.	182,181	141,873	40,308
Apr.	179,615	140,051	39,564
May	165,649	126,380	39,269
June	164,665	125,984	38,681
July	139,577	105,687	33,890
Aug.	141,340	107,941	33,399
Sept.	135,303	102,880	32,423
Oct.	140,702	106,788	33,914
Nov.	114,088	84,945	29,143
Dec.	123,281	91,017	32,264
Total	1,829,277	1,290,016	431,330
1954			
Jan.	122,758	93,577	29,181
Feb.	116,520	88,699	27,821
Mar.	122,310	92,271	30,039
Apr.	105,788	78,754	27,034
May	94,610	70,596	24,014
June	100,022	72,881	27,141
July	75,848	53,207	22,641
Aug.	89,590	66,792	22,798
Sept.	88,359	64,722	23,637
Oct.	87,085	64,004	23,081

GALVANIZED SHEET SHIPMENTS

(American Iron & Steel Institute)

(Net Tons)

	1951	1952	1953	1954
Jan.	180,399	165,196	201,472	169,086
Feb.	146,200	152,761	183,503	167,433
Mar.	172,535	177,674	204,995	180,198
Apr.	174,129	170,583	196,656	203,312
May	177,310	182,978	189,765	201,671
June	176,498	53,947	184,862	200,456
July	161,428	56,254	185,896	214,349
Aug.	190,578	177,661	187,741	207,113
Sept.	157,170	201,318	194,257	209,765
Oct.	160,552	219,883	208,705	209,498
Nov.	143,044	194,712	177,391	195,190
Dec.	145,971	208,191	175,375	.....
Total	1,984,961	1,961,158	2,290,868	.....

SHIPMENTS of TIN-TERNE PLATE

(American Iron & Steel Institute)

(Net Tons)

	Hot Dipped 1953	Hot Dipped 1954	Electrolytic 1953	Electrolytic 1954
Jan.	121,634	93,776	311,635	317,587
Feb.	105,608	95,386	267,824	297,169
Mar.	130,111	120,471	318,049	354,233
Apr.	122,291	103,910	319,386	340,838
May	122,710	145,783	336,209	461,026
June	127,570	187,508	313,595	502,466
July	102,291	79,096	302,235	162,771
Aug.	118,884	113,747	271,490	227,853
Sept.	95,060	161,007	244,718	418,874
Oct.	98,889	74,397	262,548	198,638
Nov.	84,242	63,034	218,694	198,420
Dec.	88,790	.....	177,075	.....
Total	1,318,080	.....	3,343,458	.....

Steel Ingot Operations

(Percentage of Capacity as Reported by (American Iron & Steel Institute)

Week Beginning	1951	1952	1953	1954
Jan. 4	99.1	102.1	98.2	75.4
Jan. 11	99.6	98.7	99.3	74.3
Jan. 18	100.9	99.4	99.7	74.1
Jan. 25	101.3	100.1	99.4	75.6
Feb. 1	96.7	100.6	97.7	74.4
Feb. 8	98.5	100.1	99.7	74.4
Feb. 15	99.5	100.6	99.1	74.6
Feb. 22	99.8	100.9	99.4	73.6
Mar. 1	101.0	101.3	100.3	70.7
Mar. 8	100.1	101.8	101.3	69.3
Mar. 15	101.1	102.4	101.5	67.6
Mar. 22	103.5	102.6	103.1	68.1
Mar. 29	102.4	102.1	97.1	69.1
Apr. 5	102.3	62.3	98.9	68.0
Apr. 12	102.9	97.0	98.8	68.0
Apr. 19	103.3	100.4	101.0	68.6
Apr. 26	104.0	52.1	100.3	68.7
May 3	103.7	83.0	100.2	69.4
May 10	103.9	100.3	100.3	70.9
May 17	103.6	101.3	99.8	71.8
May 24	102.7	102.3	100.3	71.2
May 31	103.2	38.7	99.6	70.2
June 7	103.2	12.5	97.9	73.2
June 14	103.2	11.8	96.8	72.3
June 21	102.8	12.3	96.8	72.1
June 28	100.8	13.3	91.8	65.8
July 5	101.5	14.2	92.8	60.0
July 12	101.9	15.1	94.7	64.3
July 19	101.4	15.3	94.4	65.3
July 26	101.5	42.9	92.6	64.2
Aug. 2	101.1	89.9	94.0	64.0
Aug. 9	101.5	93.3	95.2	64.0
Aug. 16	100.4	97.1	95.9	61.8
Aug. 23	99.8	98.7	93.4	63.5
Aug. 30	98.3	98.9	90.5	64.0
Sept. 6	100.0	100.8	89.2	63.0
Sept. 13	101.2	102.1	91.4	66.3
Sept. 20	102.1	104.0	95.1	68.7
Sept. 27	102.6	105.7	95.3	70.4
Oct. 4	101.8	106.6	95.2	71.0
Oct. 11	102.1	105.8	96.3	72.8
Oct. 18	102.9	106.9	95.0	73.6
Oct. 25	104.5	107.3	94.6	74.5
Nov. 1	101.0	105.9	93.0	76.4
Nov. 8	101.0	106.4	92.3	77.2
Nov. 15	103.7	106.5	90.7	79.3
Nov. 22	104.0	106.1	86.8	80.3
Nov. 29	103.6	105.0	87.5	81.4
Dec. 6	104.1	106.3	86.7	82.5
Dec. 13	104.9	107.7	84.3	81.5
Dec. 20	101.4	102.7	64.1	72.4
Dec. 27	102.0	107.2	75.7	77.6

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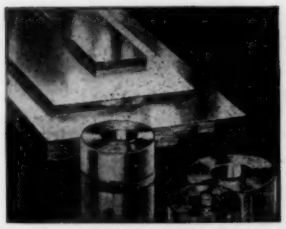
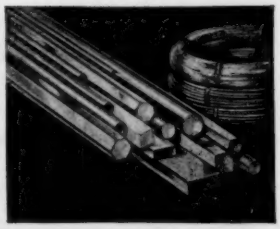
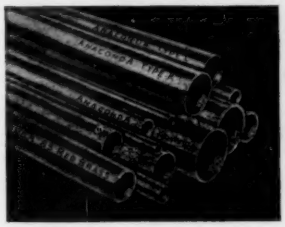
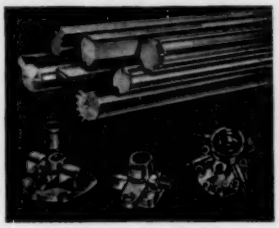

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